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INSETS.

Circulars

produced on any tint of paper, or in any colour or many colours of ink, by lithography or process work;

Counter-bills

affixed to sheets of appropriate size, in order to show the trade what they are;

Price-lists,

illustrated or otherwise, of any firm's goods, manufactures, or specialities, particularising them expertly;

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dealing with the work of business-houses or products for which they are noted,

Can be Inserted

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No Better Method Exists

of securing the attention of 12,000 of the best buyers of druggists' goods in the British Empire; and as the time is getting short and positions are being taken, we advise those who think of having an inset in our Winter Issue to

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of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C., for full particulars as to terms and instructions for printers. A thing worth doing is worth doing well and now.

Summary.

THE C. & D., vol. lxii. No. 1, this is.

A TRIBUTE to Chevreul, by Berthelot, is reported on p. 5.

SEVERAL Scotch wills of interest to the trade are noted on p. 4.

A PORTRAIT of the late Mr. R. Dandic (Perth) is printed on p. 4.

INTERESTING facts about honey and wax are given in the paper on p. 35.

CHEMISTS' CALENDARS provide us with a column of interesting notes (p. 8).

THE British commercial agents experiment abroad is to be continued (p. 3).

WE are offering prizes for draft advertisements which retailers may use (p. 36).

THE MAJOR EXAMINATION QUESTIONS given in London this week will be found on p. 8.

GERMAN EAST AFRICA has yielded several kinos, one not unlike the official article (p. 34).

THE latest information regarding the therapeutic action of the aconitines is given on p. 24.

DR. GEORGE WATT, C.I.E., has been knighted in connection with the Delhi Durbar (p. 9).

A NOTE about the sale of pennyworths of Godfrey's cordial should be read by retailers (p. 19).

THE advantages of Latin as a means of culture are quaintly supported by a correspondent (p. 25).

THERE were fewer failures in the drug-trade in 1902 than in the year before, but more bills of sale (p. 19).

IN Brittany Sisters of Mercy seem to do the minor medical treatment and most of the dispensing (p. 5).

THE Glasgow Chemists' Trade Association has addressed another letter to speciality proprietors (p. 26).

THE JAPANESE PEPPERMINT-CROPS are so poor that menthol and peppermint oil will be scarce and dear (p. 17).

THE strange customers that Ceylon chemists have to deal with are figured and described by Mr. W. Smart on p. 12.

PROFESSOR WYNDHAM DUNSTAN has been appointed to succeed Sir F. A. Abel as director of the Imperial Institute (p. 2).

ADEPS ADEPTIS, the advertising expert, tells in this issue how chemists should advertise in local papers or by circulars (p. 35).

THE Transvaal Pharmaceutical Society has made some advance with the Administration in regard to a new pharmacy law (p. 6).

XRAYSER usefully supplements the Edinburgh discussion on dispensing, and tells all about "cyathus" and "cochlear" (p. 15).

A PHARMACIST'S experience in China, especially in regard to the economic conditions of the Celestial Empire, is given on p. 23.

DR. SALVATORE GULLI gives further particulars regarding oil of citron, showing that most commercial oil is innocent of citron (p. 22).

SOUTH AFRICAN TRADE, eucalypts and their products, and the manufacture of chocolate are the subjects of the books reviewed on p. 13.

WE report the arguments advanced by Liverpool University College in its petition to the Privy Council to make it a university (p. 2).

NEW FACTS in regard to atropine and hyoscyamine are noted on p. 14, where also distillation-factors for camphor oil and particulars about isobarbaloin are given.

OUR Paris correspondent gives more particulars than the daily papers regarding the young man who attempted to separate body and soul temporarily, and failed (p. 5).

THE CHEMISTS' AND DRUGGISTS' DIARY has enabled many of our subscribers to select happy quotations or say nice things about it. We print a selection on p. 10.

THE trade in poisons is a pharmaceutical problem discussed on p. 16, wherein we describe the attempts which have been made to set aside the principle of the Pharmacy Act.

A LIST of THE BRITISH PHARMACOPŒIA CORRECTIONS up to the last reprint is given on p. 19, but a note on p. 18 shows that a serious error still occurs in the copaiba monograph.

PENDING the first drug-auctions of the year the drug-market remains quiescent, although the year closes with a cheerful business tone. Cascara sagrada, cannabis indica, canary-seed, cubeb oil are all dearer, and chlorate of potash, crude camphor and lithia carbonate are lower (p. 29).

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Brevities.

The Pharmaceutical Society's agent has been busy in Liverpool lately, and more cases of sales of poisons by unqualified persons are coming on.

On December 26 burglars visited the establishment of Mr. James Taylor, chemist and druggist, of Liverpool Road, Patricroft, and stole between 2*l.* and 3*l.*

The Halifax chemists closed on Christmas Day and the day following. On New Year's Day they were content with the usual weekly half-holiday. During the Christmas season business was rather brisker than usual.

A servant-girl in the employment of Mrs. Cowgill, druggist, Wharf Street, Sowerby Bridge, near Halifax, soaked her gloves with turpentine to clean them, put the gloves on, and then held her gloved hands in front of the fire. The turpentine caught on fire, and the girl's hands and wrists were shockingly burned.

At Bridgwater Police Court on December 22, Messrs. Hickman & Son (Limited), oil merchants, Eastover, were fined 5*l.*, and costs, for using unjust oil measures. Mr. W. Hickman, pharmaceutical chemist, writing to the local Press, states that his firm sent out the cases containing the measured quantity of oil just as they were received.

An Ancient Custom.

London citizens are not much given to noting the advent of a new year, or even permitting the placid surface of the daily business life to be rippled by the passing of an old one, but they do like to keep up ancient customs, and one of these we unintentionally participated in on Wednesday at luncheon-time. On the top floor of Simpson's, in Cheapside, there are wont to gather at 1 P.M. daily about four score of business men. They are presided over by a genial gentleman, who portions out the fish, carves the joint, and measures and weighs the big chunk of prize Cheddar that graces the board. After he had done all that on Wednesday he toasted the coming year and the company's good health and prosperity therein; then Mr. John Wyld (of Keating's), who confessed that he had attended this club dinner for forty years, though not so often nowadays as he would like, gave "The health of the Chairman" in a charming little speech, and in a cup appropriate to the occasion. So we had the unusual spectacle of a roomful of City men in the middle of the business day giving the Chairman musical honours; and "A happy new year to you" was the common phrase as all returned to their offices. This in spite of the fact that none guessed aright the height, girth, and weight of the prize Cheddar.

Fires.

The chemical-fire engine provided by the Liverpool City Council for the Garston end of the city turned out for the first time just before midnight on Christmas Eve. Fire had broken out in one of the bedrooms at the back of the shop of Mr. J. G. Driver, chemist and druggist. A prompt discovery, followed by an exceptionally smart turn-out on the part of the brigade, had the effect of confining the flames to the one room, the furniture being destroyed.

About 3 A.M. on Christmas Day a fire was discovered in the large block of premises, 30 and 32 Slater Street and 60 Seel Street, Liverpool, in which Mr. Thomas O'Brien has for some years carried on his business of check-till maker. On the first floor is situated an office, and it was in this office that the fire originated. The floor was soon burnt through, with the result that a large safe dropped, carrying with it a quantity of burning material to the floor below, used as a packing-room, where the packing-case timber and other inflammable material soon got alight. The efforts of the firemen served to confine the fire to the two floors, otherwise many tills in course of construction would have been destroyed. Work is now going on without delay, and the loss is covered by insurance.

The Imperial Institute.

In accordance with the Imperial Institute Transfer Act, 1902, the management of the Imperial Institute is vested in the Board of Trade from January 1. The Board of Trade will be assisted by an Advisory Committee representing various Government departments and the Indian and Colonial Governments. The Institute will be managed by the Board of Trade through its commercial department, of which Sir Alfred Bateman is Comptroller-General. The Board has appointed Professor Wyndham Dunstan, F.R.S., who acted as Sir F. A. Abel's assistant, to be director of the Institute. The question of providing a City office is under consideration.

Contracts.

The following contracts have been ratified:—

Chipping Norton Town Council.—Messrs. T. K. Pettipher & Son, for disinfectants.

Elham Workhouse.—Messrs. E. Bing & Sons, chemists, Canterbury, for drugs, at 39*l.* 9*s.* 11½*d.* for the quarter.

Maidstone Corporation.—Messrs. T. G. Stonham & Son, chemists and druggists, Maidstone, for disinfectants, at 157*l.* 13*s.* 7*d.* for the year.

Maidstone Workhouse.—Messrs. Corfe & Son, chemists, Maidstone, for drugs, at 30*l.* 16*s.* 7*d.* for the quarter.

St. Giles-in-the-Fields and St. George, Bloomsbury, Guardians.—Messrs. Corbyn, Stacey & Co. (Limited), for drugs for twelve months.

Sunderland Board of Guardians.—Mr. R. Anderson, chemist, Chester Road West, for drugs for the year.

Birmingham Notes.

Apprentices are in great demand, and are very slow in coming forward, in spite of the tempting advertisements in the dailies.

A chemist with 2,000*l.* to 3,000*l.* seeks a genuine business per *Daily Post*, and, as an afterthought, states, he would purchase a wine business.

Pharmacy shook off its shackles on Boxing Day and joined in the free rabbit-hunt in Sutton Park, when, with gun and ferret, a good day's sport was obtainable.

The dearth of apprentices continues, and it is strange to relate that most pharmacists who have them do not get them from local sources but from long distances.

Handsworth is suffering from an epidemic which it is worth while to mention, viz.: that of an inundation of base coin—sovereigns and florins of capital workmanship.

William Austin, Park Lane, Aston, who, on Wednesday afternoon, fell down a lift-hoist at Messrs. Harris & Co.'s, Edmund Street, died at the General Hospital the same evening.

Over 1,000*l.* has been obtained by bazaar means for the funds of the Women's Hospital, the lady dispensers being very prominent in the matter. Miss Thompson is the chief, and she has about six juniors to help her.

At an Arcade chemists' shop may be seen a good use of white demy paper. In excellently cut block letters about 5 inches long the names of the firm and their specialities are pasted upon the panes, and look very neat and fetching.

The *Mail* has been interviewing experts, and has quite a learned article upon "Drugs in Food and Drink," in which it refers to the part played by preservatives of the phenolic kind, and touches the fringe of the whole subject of adulteration of food by dyes and preservers.

Victoria University.

The hearing of the petition to the Privy Council of the Liverpool University Committee for a charter incorporating a university in Liverpool took place on December 17, 18, and 19, but the decision of the Privy Council will not be announced for some time. The petition involves the severance from the Victoria University of one of its constituents—Liverpool College. Owens College assents to the proposed severance, but the Yorkshire College, the third constituent of the University, dissents. On behalf of Liverpool, it was urged that the present federal arrangement hinders the growth of the separate colleges along the line of their

natural development. The School of Tropical Medicine, it was stated, would not be so liberally supported if merged in the University. Local patriotism would be stimulated by making Liverpool a separate university. For the Yorkshire College, it was stated that the breaking up of the Victoria University would lead to degeneration, and might result in the medicine degree not being accepted by the General Medical Council. The federal system, it was further urged, afforded a guarantee that there would not be violent oscillations in the standard of the degrees.

British Commercial Agents Abroad.

The Foreign Secretary has arranged with the Treasury for the extension of the appointments of the British Commercial Agents in Russia, Switzerland, the United States, and Central America for a further period of three years from January 1, 1903. The names and addresses of the agents are as follows:—

Mr. H. A. Cooke, 17 Malaia, Dimitrovka, Moscow.
Mr. J. C. Milligan, British Consulate-General, Zurich.
Mr. E. Seymour Bell, 196 La Salle Street, Chicago.
Mr. F. W. Melville, care of British Legation, Guatemala.

The Secretary has also appointed Mr. E. S. Schwabe to be British Commercial Agent at Vladivostok for an experimental period of two years. The business of the agents consists in watching and reporting on the commerce, industries and products of special districts, and in answering inquiries on commercial subjects. In cases requiring a journey the agent will report to his Majesty's Ambassador or Minister, who will decide whether an offer should be made to procure the information. If journeys are undertaken by the Commercial Agent a subsistence-fee of 17. 1s. per night will be charged, in addition to the actual expenses of locomotion, and payment in advance will be required.

A Man of Brains.

At a Coroner's inquiry held at Newington, S.E., on December 23, respecting the death of Maud Usher, the wife of a commercial traveller, the husband deposed that deceased had suffered from an internal complaint for some time. Some months ago she had a carbuncle on her neck, and was recommended by a sister, who lives in Peckham, to see Dr. Mathieson, of Clifton Crescent, Peckham. The Coroner (Mr. G. P. Wyatt): Did you know he was not qualified? Witness: I thought he was fully qualified till just recently. Henry Morris Mathieson, of 39 Clifton Crescent, Peckham, was next called. The Coroner: What are you? Witness: A manufacturing chemist. I acquired my knowledge from reading, studying, and experiments. The Coroner: You hold no qualification whatever? Witness: No. I'm a man of brains but no money. The Coroner: If a man holds himself up to be a fully qualified medical man, and is not so, he is a fraud. Dr. J. J. Constable stated that the cause of death was asphyxia, from dislocation of the spinal vertebrae, consequent upon disease of the bones. The jury returned a verdict according to the medical evidence.

The Coroner and Quack Medicines.

At the close of an inquest on December 29, at Lambeth, on a man who died from congestion of the lungs, and who had been taking a certain compound not prescribed by a doctor, Coroner Troutbeck remarked that he was afraid there was a great deal too much worship of quacks in England. The State made a large revenue out of the sale of quack medicines, and therefore there was a very strong reason for not altering the somewhat disgraceful system of allowing patent medicines to be so largely advertised. Some of these medicines were warranted to cure broken legs and bronchitis, and a large number of people took them instead of going to doctors, because this pernicious system was authorised by the powers that be, and the fact of medicines bearing the Government stamp gave the ignorant a false sense of security.

Plymouth Chemists' Association.

At a meeting of the Trade Section of the Three Towns Association held last week an interesting discussion on business topics took place, and the following officers were elected: Chairman, Mr. F. Maitland; Hon. Secretary, Mr. S. A. Perkins; Hon. Treasurer, Mr. F. A. Spear.

The seventh annual pharmacy ball will take place on January 23, at Stonehouse Town Hall. Tickets—gentlemen's 6s. 6d.; ladies' 5s. 6d.; double 10s. 6d.—may be obtained from the Hon. Secretary, Mr. F. Maitland, Chapel Street, Stonehouse. The following members comprise the committee: Messrs. J. Davy Tarney (President), G. Fairweather, F. A. Goodwin, E. W. H. Green, Freeman W. Hunt, N. F. Lakeman, C. J. Park, F. A. Spear, J. W. B. Swainson, and C. T. Weary.

Poisonings.

Since our last record fourteen poisoning fatalities are reported. A seedsman at Calne is supposed to have poisoned himself with carbolic acid. Another carbolic suicide was a young journalist named Bywater, who was on the staff of the *Daily Mail*, and had suffered from insomnia. Two persons took oxalic acid—a barmaid living at King's Cross, who was deserted by her sweetheart, and a young Jew at Bethnal Green who was crossed in love. Annie Donoghue, a chambermaid at a Liverpool hotel, took a quantity of a poisonous disinfectant and died; Elizabeth Miles, a carpenter's wife living at Stoke Newington, drank an overdose of chlorodyne; and a young woman named Burton bought a packet of Battle's vermin-killer from Mr. C. T. White, chemist and druggist, 102 High Street, Ashford, mixed it in a pint of stout, swallowed the draught, and died. At the inquest on December 29 Mr. White produced his poisons-book, which showed an entry made of the deceased's purchase. The Coroner, seeing the large number of entries in the book, remarked that there ought not to be a mouse in Ashford.—No fewer than five deaths were caused by unscheduled poisons—hydrochloric acid (2), salt of lemon, phosphorus, and camphorated oil. Spirit of salt was taken in mistake for eau-de-Cologne by a young married woman at New Cross, who was in the habit of taking a little of the perfume occasionally for toothache. The spirit of salt had been put in the Cologne bottle.—An Arundel woman drank a quantity of the same acid, which was stored in an ordinary medicine-bottle.—The wife of a Manchester labourer poisoned herself with salt of lemon; while a Bradford woman soaked a box of matches in hot water, drank the infusion, and died from phosphorus poisoning.—A market-gardener at Glanravan, near Rhyll, gave his infant child a teaspoonful of camphorated oil in mistake for dill-water, with fatal results.—A young Dutch servant-girl in the service of Dr. Willans, of Ovenden, near Halifax, went into the surgery, took some opium-pills, and died of narcotic-poisoning. At the inquest on December 24 the Coroner suggested that the bottles containing such pills should be locked up in future.—At an inquest held at Macclesfield on December 22 on the body of Emma Chappel, who died from an overdose of laudanum, it transpired that the deceased had in her possession laudanum-bottles bearing the labels of Mr. S. Wild, Mr. T. Cooper, Mr. Wright, and Boots (Limited). It was also stated that deceased had been refused laudanum by Mr. Bowers, chemist and druggist. The Coroner said it was a very great pity that when a person purchased laudanum an entry was not made in the poisons-book, as was the case with other poisons. At the present time anybody could go and get 2d. or 3d. worth without any fear of being questioned.—Mr. Cecil Holden, Coroner for Birkenhead, held an inquiry on December 30 regarding the death of Bessie Williams (60), a widow. The evidence was to the effect that Mrs. Williams was found lying dead on the kitchen floor, and on the table was a letter addressed to a woman whom she had worked for, in which she stated that no blame was attached to the chemist who sold her some poison, as he told her to be careful with it. A *post-mortem* revealed no traces of poison, and a verdict of natural causes was returned.

SOLIDIFIED OIL-COLOURS.—A stage in the history of oil-colours and art was marked the other day by the opening in Paris of an exhibition of pictures produced by solidified oil-colours. These colours are made in cylindrical sticks having the resemblance of pastils, and it is claimed that henceforth artists in oil-colours may dispense with the palette entirely. This is the first time pictures so painted have been exhibited, and the first solid colours of this kind were only made last February. They are the invention of M. J. F. Raffaelli, the artist.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Business Changes.

Mr. William Crockett, chemist and druggist, who started business in Montrose early in 1901, has found it necessary to enlarge his premises, and has also started a branch at Ferryden, a neighbouring village.

Football.

On December 20 a football match was played between the Scotch and English students of the Edinburgh Central School of Chemistry and Pharmacy at Hawhill, and resulted in a win for the Scotchmen by 3 goals to 2. The Scotch team was captained by Mr. R. Henderson, and the Englishmen by Mr. F. Baker.

Poisonings.

William Pillans (67), labourer, was found dead in his house at 48 Mathieson Street, Glasgow, as the result of opium-poisoning.

A young man at Falkirk bought a shillingworth of laudanum, took some himself, and administered a quantity to one of his children. Both were promptly put under medical treatment, and recovered. The man has since been certified as insane, and removed to an asylum.

Post-obit Notices.

It is publicly announced that all claims against the estate of the late Mr. James Aitken, chemist and druggist, 3 Pitt Street, Edinburgh, must be lodged with Mr. J. McKie Thomson, 20 Young Street, Edinburgh, by January 7, 1903.

In the inventories of estates of deceased persons in Midlothian, recently lodged at Edinburgh, the personality of Dr. W. Ivison Macadam is returned at 12 238/-; that of Dr. G. Hunter Mackenzie at 7,515/-; of Mr. William George McCall, chemist and druggist, 828/-, and of Mrs. Sarah J. Wildsmith (proprietrix of Whyte's Leo Embrocation), 1,125/-.

The Late Mr. Dandie.

The death of Mr. Robert Dandie, of Perth, robs the Fair City of one of its most picturesque figures, and closes a chapter in the history of Scotch pharmacy which had its beginning early last century. Mr. John Duncan, of Duncan & Flockhart, Edinburgh, was the founder of the Perth business with which Mr. Dandie's father was associated, and Mr. Alexander Hamilton was Mr. Duncan's first partner there. It was carried on as Duncan, Hamilton and Dandie, and was among the first half dozen first-class businesses in Scotland before Mr. Duncan went to Edinburgh and Mr. Hamilton to Dundee.

Its reputation throughout Perthshire remains undiminished, thanks to the successive owners. The triple name—Dandie, Newby & Dandie—so long associated with the business is quite unusual in Scotland, and to many that alone gave it distinction.

Dundee Notes.

Electric-lighting is becoming very general in Dundee pharmacies. Mr. Chas. Kerr has greatly improved the lighting of his doorway, window, &c., by the installation completed last week.

Great preparations were made by Dundee chemists for Christmas fancy trade, but the results have not been up to expectations in many cases; and this notwithstanding the extensive use of placards intimating "wholesale prices."

The wedding, on December 23, of Mr. William Thomson, chemist and druggist, Lochee, to Miss Jean Forsyth Wright, daughter of the Rev. William Wright, the parish minister, was described at some length in the local papers. The wedding reception took place at the Manse, and there the gifts (numbering about 120, and including a lovely silver tea and coffee service and tray, from the parish church congregation) were displayed.

Professor Knight, of St. Andrews (formerly a Free Church minister in Dundee), in his new volume, entitled "Some Nineteenth Century Scotsmen," gives a somewhat caustic description of the late Sir Robert Christison, M.D. This is it:—

Tall, lissome, and handsome, with a countenance and bearing which marked him as a leader of men, absolutely certain in the invariable correctness of his views and opinions, he ruled weaker brethren and fought stronger ones, with vigour and generally with success. . . . He never had breadth of view to see beyond the apparent obvious interest of the professoriate. He was not a man of genius, he was not much of a physician; but he was a great teacher, an eminent medical jurist, and a first-class fighting man.

Glasgow Notes.

A good batch of candidates are going up to the Edinburgh "Minor" examinations from Glasgow.

By the death of Mr. Wm. Gibson, the Glasgow Apothecaries' Company loses an old and faithful servant, and a familiar figure disappears from the local wholesale trade.

According to all reports the Christmas trade this season has been much better than for several years past. Perfumes, especially, have gone well, but accounts are coming in very slowly.

Assistants in Glasgow and its district are reminded that if they desire to be present at the Assistants' Association's dance on January 7, early application for tickets (7s. 6d.) should be made to Mr. F. Bewglas, 733 Dumbarton Road.

Policemen had to keep crowds moving in High Street last week. Mr. Dundas Simpson, chemist, put in an up-to-date window-display with "Daisy" smart man in the centre surrounded with grasses, moss, &c., with the usual show of perfumes, and it caught the crowd.

The yearly drug-contract for the Victoria Infirmary, which has been held for some years by Mr. J. Taylor, Trongate, has now been secured by the Apothecaries' Company, Virginia Street, and the contract for the Royal Infirmary has been transferred from the Apothecaries' Company to Messrs. W. & R. Hatrick & Co.

In a southern suburb the chemists are vying with one another in the distribution of Christmas presents to customers. Purchasers of a shillingworth are promised a bottle of ginger-wine essence or a tooth-brush, a set of views of scenery, and a box of soap, according as they deal with Smith, Robinson, or Jones. This is an innovation for Glasgow.

An evening paper gives as the latest of a series of "city snapshots" a view, not remarkable for verisimilitude, of the doorway and part of the interior of a chemist's shop. The chemist, with a high-domed bald head, is seen craning his neck out at one side of the door and leering seductively at the passing public. The sketch is headed "A man Christmas makes busy: McBetter, chemist."

The employés in Glasgow, Paisley, Greenock, Ayr, and Falkirk of Messrs. Cockburn & Co (Limited), wholesale and retail chemists, have subscribed a total of 25/- 4s. to the funds of the Glasgow Royal, Glasgow Western, and Victoria Infirmaries, Samaritan Hospital, Sick Children's Hospital, East Park Homes, Home for Incurables, Quarrier's Home, Dunoon Home, Greenock Infirmary, and Ayr County Hospital.

The *Lancet* for December 20 contained a remarkable article by Dr. Carlos, formerly resident-physician at the City Fever Hospital, Belvidere, Glasgow, on "The Intravenous Injection of Anti-Diphtheritic Serum." The writer



MR. R. DANDIE.

gives particulars of cases of advanced and malignant diphtheria treated by this method, and the results seem to justify his conclusions as respecting its superiority in respect of life-saving power to the ordinary hypodermic-injection treatment of such cases.

At the meeting, on December 23, of the Natural History Society of Glasgow, there was exhibited, on behalf of Mr. Bennett, a specimen of *Polygala amatella*, Croutz, from Grassington, West Riding of Yorkshire. It was explained that this form, although plentiful in Switzerland, had not previously been detected in Britain. A specimen of ash (*Fraxinus excelsior*), with abnormal development of cork-warts, was also shown, and R. S. Wishard, M.A., communicated an interesting paper on "Experiments on the Thickening of some Tree-stems."

The programme of the Glasgow and West of Scotland Pharmaceutical Association, which will be issued shortly, comprises four meetings. In January Mr. W. L. Currie discusses on "Pharmaceutical Politics." In February there is to be an open meeting to discuss the titles question, &c. In March a meeting for short papers—viz., "Tablet-making at the Dispensing-counter," with demonstrations, by Mr. H. P. Arthur; "Copper in Nux Vomica" by Mr. D. Watson; and "Dispensing Notes" by Mr. D. Black. At the closing meeting in April Mr. T. Mahen lectures on "A British Pharmacist in America," with specially prepared lantern-slides.

French News.

(From our Paris Correspondent.)

TRADE IN CHEMICAL PRODUCTS.—Business between France and Great Britain is on the increase. For the first ten months of 1900, 1901, and 1902 the imports of chemicals into France from Great Britain were:—

	1902	1901	1900
Value ...	18,448,000f.	12,800,000f.	18,156,000f.
Quantity ...	74,416 tons	59,036 tons	71,079 tons

The exports from France to Great Britain were:—

	1902	1901	1900
Value ...	12,331,000f.	11,568,000f.	11,404,000f.
Quantity ...	29,936 tons	24,918 tons	24,444 tons

STUPIDITY AND PERVERSITY.—The husband noticed a dark powder floating on his coffee, and at once got into a furious rage. "You want to poison me, do you?" said he. "Well, here's a lesson for you." He then belaboured his poor wife so unmercifully that she had to be conveyed to a hospital. His name was Lenepyeu, and his wife had suspected him of inconstancy, so that she rather too readily accepted a neighbour's advice that if she burned a lock of her hair and sprinkled her husband's coffee with it his fickleness would disappear. She will have several days' quiet rest to think the matter over at leisure and regret her stupid action.—A case of a different kind is also reported in Paris this week. In this instance a servant-girl aged 15 gave a baby only six weeks old a large dose of tincture of iodine. Revenge for dismissal was the only reason for this perverse crime, and the servant is now in prison.

OCCULT SCIENCES.—The study of occult sciences has a charm for many. A young Frenchman named Albert Guelle, commenced devoting himself to it about seven years ago. He finally threw up a good position in order to follow his favourite studies and experiments more closely, taking up his residence at Meudon, in the neighbourhood of Paris. The result of his experiences has been the loss of his life, and some interest is attached to the manner in which he brought this undesirable result about. Starting from the idea that, in dreams, the brain keeps its independence, he sought a means by which he could maintain his body in a lethargic sleep for ten days, while his soul, that other self, freed from all restraint, could roam space at will, in the Astral. M. Guelle made several attempts to separate his other self from the body, but unsuccessfully. He was not discouraged, however, as a less enthusiastic person might have been, and finally an idea struck him. He made a head-gear, something resembling that of a diver, and a costume or apparatus to which a reservoir containing a mixture of chloroform and water was attached that a tube conveyed to

his lips drop by drop. He anointed his body with antiseptic substances to prevent decomposition during his "journey," and, after making his last will and testament, he wrote to a medical friend asking him to be present at the awakening in ten days' time. On receiving the letter the doctor at once informed the young man's family and went to Meudon, but it was too late. M. Guelle was found on his bed, kept in a rigid position by his apparatus. His features were calm, and he appeared to be sleeping, but the body was already cold. He left a kind of scientific will, in which his studies and experiments were recorded, to be published in case of failure of his attempt.

PARIS ACADEMY OF SCIENCES.—The annual public meeting of this Academy was held last week, the President for the year (M. Bouquet de la Grye) occupying the chair. He mentioned that the Academy had a total sum of 317,000f. (say, 12,680l.) in prizes to dispose of this year, but of this 100,000f. is destined to the astronomer who shall first converse with the planet Mars, and a like sum to the discoverer of a remedy against cholera, but though there have been applicants for the prizes no one has been lucky enough to secure them. The President also referred in suitable terms to the members of the Academy who have died during the past year; they include Cornu, Virchow, and Deherain. The principal subject of interest connected with the meeting was an instructive account of the life and works of Chevreul, the celebrated chemist, by Berthelot. The eminent Perpetual Secretary of the Academy reminded his audience that Chevreul was a member of that body for sixty years, and he died at the age of 103 years still in full possession of his remarkable faculties. M. Berthelot sketched the following word-portrait of his famous colleague:—

He was a grand old man, crowned with long white hair, which the wind played with at the back of his head. A robust man, of intelligent features, sufficiently regular, of which the well-marked lines were wanting, perhaps, in *finesse* and vivacity. A pleasant smile haunted his lips, the expression of contentment, resulting from a well-balanced health and mind, of a happy and quiet career, and of a high position surrounded by universal respect. Born in easy circumstances of a middle-class family in good position, life had been facile for him and without any great struggle either for position or for doctrine. His love for science was early crowned by brilliant discoveries. . . . But he took no very profound interest in people in general, and when he died he left behind him neither numerous pupils nor a school of thought.

PHARMACY IN BRITANNY.—A somewhat curious fact concerning pharmacy has come to light through the recent legislation in France against religious institutions. In spite of progress, revolutions and railways, the Bretons retain to a marked degree their old habits, traditions and dialect. They also have an amount of religious fervour that scarcely exists in any other part of France, and their schools have, to a great extent, been in the hands of priests and sisters of mercy. The latter especially have enjoyed great popularity, due both to their care of the sick and to the drugs and medicines they supply gratuitously, or for a small charge. The number of pharmacies kept by sisters of mercy in Brittany is considerable. For generations the Breton peasant has been in the habit of consulting the "good sister" who also supplies remedies. In small villages there are always at least two sisters, one a school teacher, and the other a pharmacienne. The latter serves as a means for inducing parents to send their children to her companion's school and this state of things has been a source of much annoyance to the School Boards in Brittany. But the deeply rooted habits and prejudices of the rural populations have to be reckoned with. The peasant prefers paying for the "good sister's" remedy to receiving one from a doctor for nothing, and until quite recently the tariff of these religious pharmacies was given in ounces, scruples and grains, although by the introduction of the decimal system the use of the old system of weights and measures has been illegal for more than a century. It may be mentioned, however, that the local officials admit that the sisters of mercy often render good service by supplying simple remedies amongst the farms in the more remote districts. Some time ago a doctor in the neighbourhood of Brest lodged a complaint against a pharmacienne sister of mercy, and as a result he was boycotted so severely that he had finally "to up sticks and away," being replaced by a doctor from the Catholic Faculty of Lille.

South African News.

(From our own Correspondents.)

Note.—The CHEMIST AND DRUGGIST is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz. :—

SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION.
PHARMACEUTICAL SOCIETY OF CAPE COLONY.
NATAL PHARMACEUTICAL SOCIETY.
TRANSVAAL PHARMACEUTICAL SOCIETY.
RHODESIA PHARMACEUTICAL SOCIETY.

LOOKING FOR TRADE.—The Canadian Government has had a commercial agent in South Africa for the past four months, travelling over Cape Colony and the Transvaal. The New Zealand Government has an agent engaged in similar occupation.

CATTLE-DISEASE IN MAURITIUS.—In June of last year Dr. Alexander Edington, the Cape bacteriologist, was sent to Mauritius to investigate a cattle-disease that had broken out there. His report on the subject to Sir Charles Bruce, Governor of Mauritius, shows that exhaustive investigations were undertaken to determine the source, nature, and cure, of the disease, which was discovered to be due to the parasites known as *Trypanosoma*. It had equivalent symptoms to the "Surra" disease which attacks horses in India, but in the Mauritius epidemic equides and bovines were equally affected. The treatment appears to be complete isolation, the infected animals being given 1 lb. of Epsom salts together with some linseed, and afterwards $\frac{1}{2}$ gr. to 1 gr. of strychnine daily as a tonic.

Transvaal Notes.

JOHANNESBURG, December 6.

RECIPROCITY.—An application was made recently by a registered Transvaal chemist of some years' standing to be placed upon the Cape Colony Register of Chemists and Druggists. It was refused; but he was informed that he was entitled to registration on account of his British qualification.

BUSINESS IN JOHANNESBURG PHARMACIES is much improved, and may be said to be good on the whole. It would undoubtedly be better still if the "bread-and-butter lines" came more rapidly to hand. Certain well-known patent and proprietary lines cannot be obtained in sufficient quantities to meet the demand, in consequence of the delay at the coast towns. There is a general complaint in all branches of trade, and there is apparently no remedy but patience. The railway people are doing all they can to facilitate matters, and there is not nearly the same room for complaint that there was two or three months back.

TRADING-LICENCES.—In view of the date for the renewal of trading-licences the committee of the Johannesburg Chamber of Trade has addressed the Government with reference to the progressive scale of trading-licences levied under Article 7 of Law No. 17 of 1899. The licences are estimated on the sales irrespective of such sales having shown a profit or not, and this the committee considers unsound in practice. The law as it stands enforces very much higher licences than are paid in either the Cape Colony or Natal. The full licences to cover both the importers' and retail dealers' businesses amount to 15% sterling in both Colonies named. The matter has been referred to the Treasury Department, and it is hoped that traders will be granted some relief.

ADMINISTRATION OF CHLOROFORM.—A lady died here recently in a dental surgery whilst under the influence of chloroform, and the incident has caused some interest by reason of the statement of Dr. James, M.R.C.S., L.R.C.P., who administered the anæsthetic, that he did not consider it advisable to have two doctors present at the operation, and by his admission that he had not examined the patient's heart prior to giving the chloroform. Dr. James contended that such an examination very often proved misleading, and produced various medical authorities in support of his con-

tention. Captain Fuge, representing the Crown, put in a copy of the *British Medical Journal*, in which an article on the subject appeared, by Dr. Emden, stating that "the heart-muscle is very sensitive to the poisonous effects of chloroform." Dr. James argued that it was a disputed point whether the respiration or the heart stopped first. Dr. James was not registered to practise in the Transvaal, nor was the dentist in whose rooms the operation was to take place. In the result the Magistrate found that it had been proved it was the practice to examine the heart before administering chloroform, but a verdict of accidental death was returned.

PHARMACY LAW AND REGISTRATION.—The indiscriminate issue of chemists' licences to persons who state they are chemists without producing proof that they are such, and who do not give certificates of qualification, has been exercising the minds of the members of the Pharmaceutical Society of the Transvaal for some time past. Matters are now being brought to a head, and in reply to the letter from the Society to the Colonial Secretary, recently printed in THE CHEMIST AND DRUGGIST, the following has been received by the Secretary (Mr. Purnell):—

Colonial Secretary's Office, Pretoria, Transvaal.

Sir,—I have the honour to acknowledge receipt of your letters of the 26th August and the 3rd inst., and in reply to inform you that the Receiver of Revenue, Johannesburg, has been instructed not to issue licences to trade as chemists until he has satisfied himself that applicants have conformed with the provisions of Proclamation, No. 1 of 1902. (2) With reference to the second paragraph of your letter of the 26th August, I should be obliged if you would be good enough to furnish the receiver of revenues with a list of unqualified persons who have secured licences to trade as chemists, in order that proceedings may be instituted against them. (3) In regard to your request for an interview with the Colonial Secretary, I am to ask you to favour me by particularising the portions of the existing law which, in the opinion of the members of the Transvaal Pharmaceutical Association, are prejudicial to their interests and position.

I have the honour to be, &c.,

(Signed) W. H. Moor, Assistant Colonial Secretary.

On receipt of this reply a committee-meeting of the Association was called, at which it was decided to send the following letter in reply:—

Johannesburg, December 5, 1902.

The Assistant Colonial Secretary, Pretoria.

Sir,—We have the honour to refer to your letter No. 12,671 of the 17th ult., *re* paragraph 2. We have forwarded a list to the Receiver of Revenue, Johannesburg, of persons who are keeping open chemist shops, using the title of chemists, dispensing prescriptions, and selling poisons, and who are not on the register. Paragraph 3: Our Society are of opinion that the present law (1886) is no protection to the public or to the chemists, and is totally unworkable. We suggest that an entirely new pharmacy law, based on the British and Cape Colony statutes, be handed by us to you for consideration, and that we be represented at the discussion thereon. Perhaps the most objectionable and unworkable clause in the existing law is that relating to the sale of poisons, in which we cannot sell poison of any description without an order from a doctor or a landdrost, as we consider that the sale of poison ought to be conducted in the same manner as in Great Britain (Act 1868). Several of the gentlemen whom the Government have registered during 1901 and 1902 are, in our opinion, insufficiently qualified to be placed thereon.

We have the honour to be, &c.,

(Signed) R. BUTTERS (President),

AUSTIN PURNELL (Secretary).

This is where the matter now stands, and it will be interesting to learn how far the Government will concede the demands of the Association.

TREATMENT OF OLIVE OIL CAKE.—The annual report for 1901-02 of the Cyprus Department of Agriculture, after giving some particulars with regard to the olive oil industry of that island, goes on to say that on account of the primitive kind of press used in Cyprus, the olive oil cake of the island is very rich in oil, but it is mostly thrown away. With a view to obtaining a better market, some local proprietors and merchants were placed in communication with certain factories abroad whose business it is to extract oil from olive oil cake by means of carbon bisulphide. As a result, a quantity of about 150 tons has been exported during the past two years.

Colonial and Foreign News.

EXPORT DUTIES IN COLOMBIA.—The Government of Colombia has decreed a progressive reduction of 10 per cent. in export duties beginning January 1.

SWEDISH MEDICINE IMPORTS.—After January 1, pharmaceutical goods can only be imported into Sweden by managers of pharmacies, and not by pharmacists generally.

PURE MINERAL WATERS IN CEYLON.—It is proposed to lay before the Ceylon Municipal Council shortly a by-law with regard to the manufacture and sale of aerated waters in Colombo, with the object of securing the sale of pure waters to the public by the manufacturers.

BRITISH TRADE IN TURKEY.—The official returns just published show that British trade with Turkey has greatly increased during the past year. The British imports during the preceding year amounted to 42 per cent. of the total foreign trade, but last year the proportion was 64 per cent.

BORIC ACID IN GERMANY.—The United States Consul at Berlin has sent to Washington a copy of a protest made by the chemical companies of Germany to the German Government against the law prohibiting the use of boric acid as a means of preserving meat. The companies argue that the use of the acid is not harmful.

INTERNATIONAL CONGRESS FOR APPLIED CHEMISTRY.—Preparations are now being made in Berlin for the Fifth International Congress for applied Chemistry, which is to be held there next Whitsuntide. The Organisation Committee consists of sixty of Germany's most distinguished men in industry and science. Delegates from all parts of the world are expected to participate in the Congress.

CHEAP QUININE IN ITALY.—On several occasions we have referred to the practice of the Italian Government in their campaign against malaria of providing quinine at low prices for the peasants. The *Daily Mail* has now discovered the beneficent intentions of the Government, and adds that in order to meet the demand for the 1903 malarial campaign (from May to November) "11 tons of bisulphate of quinine are now being prepared."

WHAT THEY DO IN GERMANY.—An artificial mineral water manufacturer in Zwickau was recently charged by Dr. Struve, mineral water manufacturer, Leipzig, with illegal competition for advertising in the daily press that, having procured one of the newest stills, he was in a position to manufacture a pure distilled seltzer water like that made by Dr. Struve, of Leipzig. The Court found this to be fraudulent advertising and fined the advertiser 5*l*.

EGYPTIAN MEDICAL CONGRESS.—The first congress of medical men practising in Egypt was opened by the Khedive at Cairo on December 19, some 900 medical men being present. The original idea was to have a congress of Russian doctors only, but it was soon seen that in that case its usefulness would not only be restricted, but that Government patronage could not be expected. The characteristic diseases of the country furnished plenty of subjects for discussion.

WOMAN'S WIT.—The students of the Melbourne College of Pharmacy have had many enjoyable botanical excursions during the past year. On one occasion they went to Sandringham, a seaside resort, and while there one of the students found a lady's garter. Gathering the company around him, he produced his find and solemnly asked, "To what natural order does this belong?" "Leg-uminosae," promptly replied a bright lady student, and she was awarded the gold medal on the spot.

A FIRE AND ITS RESULTS.—At Taxim, Turkey, a fire occurred on December 19 in the house of an Armenian chemist and spread to two neighbouring houses inhabited by families who lost nearly all their belongings. The chemist's sister and one of the inmates of the adjoining house were badly burnt and had to be removed to hospital. All three buildings were entirely destroyed by the fire, and another house was demolished by the brigades in view of preventing the extension of the conflagration.

A GLAUBER SPRING.—Information from St. Petersburg states that one of the two expeditions sent out by the Russian Ministry of Agriculture, to explore Kara Bughaz, the "Black Gulf," on the east of the Caspian Sea, has ascertained the existence of a salt spring yielding enormous quantities of the purest sulphate of soda. As the locality is within easy distance of Baku, it is expected that the Kara Bughaz spring will in time provide the whole world with sulphate of soda. The Russian Government has already begun to make arrangements for parcelling out the area to private speculators.

RUSSIAN CHEMICAL-INDUSTRY.—Moscow and its neighbourhood were, until a short time ago, the only seat of the Russian chemical-industry. Of late years, however, numerous chemical-factories have been founded in St. Petersburg, Reval, Tula, Poland, and along the Volga, which are in closer vicinity to the sources of raw materials and fuel. The competition of these works has injured the Moscow chemical-trade in the most remote Russian markets, as well as in the Moscow market itself, and, in consequence, the Moscow chemical-industry remains chiefly confined to those products for which it has been for years especially noted—viz., sulphuric acid, acetic acid, muriatic acid, and various metal salts.

A GANJA CASE.—Abdul Guffoor Khan, of Rangoon, was placed on trial on November 27 for being found in possession of 2,084 tolas of ganja. According to the evidence of the prosecution, two officers met a native carrying two tins of ganja. The man dropped the tins and bolted, and the accused, who suddenly appeared, picked them up. The two officers arrested him, and prevented him from carrying them away. Immediately afterwards they were surrounded by a threatening crowd of about a hundred men, and had to draw revolvers to defend themselves. They tried to fire five times, but the cartridges all missed fire. The crowd then dispersed, and the accused was taken into custody. The hearing was adjourned.

CHEMICALS IN POLAND.—The Austrian Consul-General at Warsaw writes that the chemical-industry in his district has made good progress throughout the year. Fine and heavy chemicals, continue to be bought abroad, and Germany, England, and Austria are the sources of supply. On the other hand, there is a constant falling-away in the importations of artificial manures and common colours. There is a growing export of bone meal and phosphates, the local industry in this line being overweighted with orders on account of the excellence of its products. Sulphuric acid is also becoming acclimatised. Chile saltpetre finds a ready market there, as well as dye and tan woods, camphor, gum arabic, zinc-white, aniline dyes, &c. Particular attention is drawn by the Consul to the demand for potash, sulphuric acid, and tanning-stuffs.

CHEMICAL PRODUCTS IN TURKEY.—A German consular report on the trade of Turkey for 1901 states that large quantities of bichromate of potash are imported annually, and almost exclusively from Glasgow. The potassium iodide imported is obtained from Germany and France. Iodoform is imported almost exclusively from Switzerland, which country has a special method of manufacture. Bromide preparations come chiefly from Germany, France being too dear. The above-mentioned goods are usually imported through the agency of wholesale drug-houses or pharmacists in Smyrna and Beyrout, who keep stocks, and from whom the provincial customers from Asia Minor, Syria, and Palestine make their purchases. Northern Syria is supplied through Aleppo, the demand from this town being estimated at over 400,000*l*. yearly; Jaffa imported more than 100,000*l*. worth of such goods in 1900. Considerable stress is laid on quality. Soda and potash are also important trade articles. Caustic soda is imported into Turkey in large quantities, and is mostly used in the manufacture of cheap soap; 50,000 to 60,000 bags, each of 100 kilos., are imported annually into Smyrna. Of this quantity about 5,000 bags are consumed locally, the remainder being forwarded to the interior and the numerous soap-factories on the coast and the Archipelago. These chemicals were formerly obtained through commission-houses in Glasgow, Liverpool, London, and Manchester, but a Belgian company has now the largest share of the business.

Chemists' Calendars.

Mr. William Jones, pharmaceutical chemist, Dublin, has adopted one of the small and artistic stock calendars which go into the vest pocket. He sends each one out in a tinted envelope.

Mr. Horace Watson, Cleethorpes, proprietor of Watson's family pills, issues a large-sized hanging calendar, a month on each sheet. Mr. Watson's portrait in half-tone appears on the top of each page.

The card calendar sent by Mr. Hugh Lambie, dispensing chemist, 22 Nithsdale Road, Strathbungo, Glasgow, is an artistic production in olive green and gold, in the upper part being a fine lithograph of Highland cattle amidst appropriate surroundings.

Messrs. William Allan & Son, chemists, Dumfries, are giving to their customers a pretty 1903 calendar for the mantelshelf. It measures about 6 inches by 3 inches, and the upper part has a three-colour process portrait of "Therese," which will ensure it being kept throughout the year.

Mr. A. H. Jones, M.P.S.I., dispensing chemist, Doneraile, co. Cork, sends out the Bouquet Almanac for 1903. It is of purse-size. The advertising information is rather too general, and the blank sides of the cover could have been used with advantage from an advertising point of view.

Mr. Arthur Hoyle, chemist and druggist, Wilsden, affects the wall calendar with monthly tear-off sheets. This does not leave much room for advertising-matter, but, on the other hand, Mr. Hoyle's name is continually displayed in bold type, and no one can look at the calendar and ignore the "chemist."

The Washington Chemical Company (Limited), Washington, Newcastle-on-Tyne, issue a very effective card calendar in the shape of a cylinder of liquid carbonic-acid gas. The cylinder is represented in grey with bronze fittings. The calendar fixed on the lower part is lettered white on a dark-blue ground, each sheet containing the twelfth of a year.

The International Bottle Company, 19 St. Dunstan's Hill, E.C., send us a blotting-pad, which bears on the left-hand side a diary for the year (a page per week, interleaved with blotting-paper), and on the right hand a pad of "memoranda" paper. The blotting-sheets have the month's calendar printed on each, and the get-up as a whole is artistic. We presume the Company are presenting the desk adjunct to their customers.

One of the bulkiest household almanacs which have reached us so far is the one published by Messrs. Spong & Son, chemists, Biggleswade. This is the fifty-third year of publication and this year a directory has been added. The almanac contains plenty of advertisements of Messrs. Spong's specialities and on account of the wealth of local information will doubtless be kept for reference all the year round by the people of the district.

Since last year Mr. J. Spencer Palmer, chemist and dentist, Thornbury, Glos., has moved to new premises appropriately called "Coronation House," and added a photographic department to his business. The 1903 edition of Palmer's almanac duly notes these changes and shows even more vitality than the previous issue. The local advertisers are satisfied, one having had an inquiry from as far afield as India, which Mr. Palmer attributes to the modest review of his last almanac in THE CHEMIST AND DRUGGIST.

The almanac sent out by Mr. W. Dennis, chemist and druggist, Ocean Road Pharmacy, South Shields, has on the covers pictures of the exterior of Mr. Dennis's shop, an interior view and portrait of the proprietor being given in the coloured pages. The coloured pages contain the advertisements, and are placed, contrary to the usual practice, in front of the calendar portion. Mr. Dennis in his announcements makes a point of the fact that he has recently added a sight-testing room, and also states very clearly what his shop-hours are.

The almanac and tide-table for 1903 issued by Mr. F. B. Bennett, chemist and druggist, Whitehaven, is not only of local, but imperial utility. The "local chronology" of the

past year will be a useful record for future generations, while the imperial smack (without which it appears few almanacs are genuine) is well sustained. The illustrations are varied and well printed, while the practical information, including as it does a table of antidotes to poisons, gardening hints, and "simple remedies for common ailments" make the production acceptable to all kinds of readers.

Major Examination.

THE following are abstracts of the papers submitted to candidates for the title "pharmaceutical chemist" by the Board of Examiners for England and Wales at the examination which commenced on Saturday, December 27, 1902:—

BOTANY.

Three out of four questions had to be attempted: (1) required a description of the differences between laticiferous vessels and cells and resin-ducts, with mention of plants in which they occur and the uses of the contents; (2) called for comparison of the life-histories of Ascomycetes and Basidiomycetes; (3) asked an account of respiration in plants; and (4) an account of *Orchidaceae* and *Solanaceae*, with three British examples. In practical work three subjects were given—(1) requiring two preparations of a structure, (2) isolation of embryos, and (3) reference of a specimen to its Order. In each case drawings were required.

CHEMISTRY.

Six out of ten questions (No. 6 was omitted) had to be attempted, two of them being from Part II. of the paper. The Part I. questions were: (1) the sources and preparation of iodine and the action of nitric acid on potassium iodide; (2) an account of the chief properties of hydrogen peroxide and its estimation; (3) method for quantitatively analysing a gaseous mixture of CO and HCO₃; (4) why has the atomic weight of oxygen as 16.00 been taken as the basis of the system of atomic weights; how have the relative atomic weights of H and O been ascertained, and the result? (5) a description of the preparation and properties of nitrogen peroxide, chrome alum, arsenic trichloride, and mercuric cyanide. The Part II. questions were: (7) reasons for the structural formula for naphthalene and the preparation of that body; (8) how is ethyl iodide prepared? with particulars of its properties, and the action of hydriodic acid on organic substances compared with hydrochloric acid; (9) what constitutional formula may C₃H₆O₂ have, and how decide this by experiment? (10) action of yeast on a solution of cane sugar. In practical chemistry (which took place on December 27, between 11 A.M. and 5 P.M.) the candidates had to make a crystallised specimen of lead formate from a solution of formic acid. The second task was a separation of two metallic crystalline sulphates, one in small amount as an impurity, the amount of the impurity to be estimated. The third exercise was to identify a substance.

PHYSICS.

Eight questions were given, and six had to be attempted: (1) Example and theory of osmosis; (2) explanation of the means of determining the refractive index of a glass slip by means of a microscope; (8) how to compare the intensities of two lights, an example being given for explanation; (4) what is "mechanical equivalent of heat"? describe a method of measuring it; (5) ten cells, each having an electromotive force 1.8 volt, and an internal resistance of 0.5 ohm, are connected in series, and the circuit is completed by a wire having a resistance of 5 ohms—calculate the strength of the current; find also what would be the current if the cells, instead of being connected in series, were arranged in parallel; (6) describe two methods of determining the amount of aqueous vapour in the atmosphere, and explain the principles of the methods; (7) account of conduction in electrolytes, and what separates at the electrodes during electrolysis of solutions of copper sulphate, sodium chloride, lead acetate; (8) what is the nature of high-frequency currents used therapeutically? describe apparatus and production.

MATERIA MEDICA.

Two of the following questions had to be answered: (1) State what you know of the active constituents of *strophanthus*-seeds, *digitalis*-leaves, *hyoscyamus* leaves, *jalap*, *scammony-root*, and *willow-bark*, also their isolation; (2) manufacture and properties of *veratrine* (B.P.); (3) preparation, composition, characters, and tests of the official soaps. In the practical work (1) four drugs had to be identified, and their diagnostic features stated as well as their quality reported upon; (2) a powdered official drug was given for examination and report, with diagrammatic sketches; (5) a similar sample to tell whether it was adulterated or not.

Personalities.

COLONEL WM. FITZTHOMAS WYLEY (of Wyley's, Limited, manufacturing chemists, Coventry) has been appointed a Justice of the Peace for the County of Warwick.

MR. F. PILKINGTON SARGEANT, F.C.S., of the Leeds College of Pharmacy, has been seriously ill, but is now convalescent, and will resume his work at the College on January 20.

MR. H. VALENTINE KNAGGS, M.R.C.S., 189 Camden Road, N.W., has written a booklet on, "How to treat Cancer," wherein he describes the benefits derived from the application of the high frequency electrical current, and large doses of calcium sulphide. Mr. Knaggs believes that the benefits derived from Clay's Olean turpentine mixture were due to the sulphur that it contained. He will send a copy of the booklet to any chemist who sends him a stamped envelope.

WHEN opening the Art Exhibition at Delhi on Tuesday, December 30, the Viceroy had Dr. George Watt by his side, and stated that it was Dr. Watt who had got together the fine collection of Indian work. The *London Gazette* of December 30, 1902, announces that the King has been graciously pleased to confer the honour of knighthood upon Dr. George Watt, C.I.E., and seven other gentlemen in connection with the Delhi Durbar. Dr. Watt is a native of Old Meldrum, Aberdeenshire, and is in his 52nd year. He studied at the Aberdeen and Glasgow Universities, graduating as M.B., C.M., at the latter thirty years ago. He was assistant to the Professor of Botany at the Aberdeen University for two years, and in 1873 was appointed to the chair of Botany at the Calcutta University. Since then he has steadily worked in connection with the development of the natural resources of India, and is one of the leading authorities on its materia medica and other economic products. Sir George Watt is an honorary member of the Pharmaceutical Society of Great Britain.

MR. G. T. STARKEY, chemist and druggist, Senghenith, South Wales, has received the Volunteer long-service medal. Mr. Starkey has competed every year since 1882 without a break for the Queen's and King's Prizes, and has been amongst the most successful of marksmen, having shot off ties for the "Graphic Cup" and other trophies. Mr. Starkey was for many years a member of the English Twenty Club, and district superintendent for South Wales in 1900, when he was elected to life membership by the Council of the National Rifle Association. He has been in four Rifle battalions—the 2nd Devon, 2nd V.B. Royal Warwick, the 19th Middlesex (Blossbury Rifles), and still serves as a sergeant in the 3rd V.B. the Welsh Regiment. Mr. Starkey is an old member of the Blossbury Rifles Lodge of Freemasons, and was initiated by Colonel Smith-Richards, C.B., V.D., when he was the W.M. of the Lodge and the colonel commandant of the regiment. Mr. Starkey is an old Bedford School boy, and in 1868 was apprenticed to Mr. John Ekins, of that town, and passed the Minor in 1877.

ABOUT "PHARMACEUTICAL FORMULAS."

THE *Practitioner* for December, 1902, reviewing the last Edition of this work, published by the U. & D., says:—

"For the physician who wishes to know something of the inwardness of the many compounds he is likely to meet with in the varying circumstances of his round of practice no book could be better adapted. He will learn the composition of 'pick-me-ups' and 'bitters,' of furniture-creams, baking-powders, food-preservatives, writing-inks, potted meats, table-sauces, perfumes, tooth-pastes, hair-dyes, as well as concentrated infusions and the methods of manufacture and composition of all the most modern galenic substances. The pharmacist will find it a storehouse of valuable information, and the medical practitioner will obtain assistance from it in many a perplexing moment when standard authorities fail to venture into details."

A CLEVER DIAGNOSIS.—Wife (to sick husband): "The doctor says your system needs a stimulant, and has prescribed whisky." Patient (eagerly): "That physician has diagnosed my case correctly; he knows his business. When are we to begin?" Wife: "Right away. You are to take half a teaspoonful after each meal."

Business Changes.

MR. E. J. LATHAM, chemist and druggist, Shirebrook, Mansfield, is opening a branch at Creswell.

MR. D. EVANS, of Poole, has purchased the business carried on by Mr. P. F. White at 11 The Parade, New Eltham, Kent.

THE business formerly belonging to Mr. Rose at Chipping Norton has been acquired by Mr. F. Hudson, late of Bradford-on-Avon. [Correction.]

THE business at 9 Earle Street, Crewe, lately belonging to Mr. B. W. Kilvert, chemist and druggist, has been purchased by Messrs. Russell & Andrews.

MR. JAMES BELL, late of Hastings, has purchased, through the agency of Messrs. Berdoo & Co., the business of Mr. A. J. T. Long at Byfleet, Surrey.

MR. C. W. AUSTEN has disposed of his business at Church Street, Weybridge, to Mr. H. W. Neatborecoat. Messrs. Berdoo & Co. effected the transfer.

MR. J. G. WALLBRIDGE, chemist and druggist, has purchased the business lately carried on by the Atherton Drug Company at 10 Bridge Street, St. Helens.

MR. E. A. HOLLOWAY has disposed of the pharmacy in Queen Victoria Street, E.C., which he started a few months ago. During the short time he had it he built up a smart business, and demonstrated how quickly modern methods bring results.

Marriages.

KENNEDY—OSWALD.—At Canmore, Kinghorn, on December 23, by the Reverend Alex. Mitchell, Ladyburn U.F. Church, Alexander Kennedy, chemist and druggist, Arbroath, to Margaret, third daughter of Mr. James Oswald, Canmore, Kinghorn.

RAE—CHAPMAN.—On December 26, at the parish church of St. Stephen, Exeter, George Ernest Alfred Rae, chemist and druggist, Brixton, London, formerly of Exeter, to Kate Madeleine, eldest daughter of Mr. F. B. Chapman, of Exeter.

THOMSON—WRIGHT.—At Lochee Parish Church, Dundee, on December 23, by the father of the bride, assisted by the Rev. Alexander Waddell, Bessie, William Thomson, chemist and druggist, Lochee, to Jean Forsyth, eldest daughter of the Rev. William Wright, minister of the parish.

Deaths.

ABRAHAM.—On December 22, 1902, at Riverham, Grassendale Park, in her 88th year, Maria Hayes Abraham, widow of the late John Abraham, pharmaceutical chemist, of Grassendale and Liverpool. The remains of Mrs. Abraham were cremated at Anfield on December 24. She had survived her husband twenty years, and had lived in comparative retirement with her sister, Miss Tyermann, who is 92 years of age.

BUDWORTH.—On December 22, Mr. William Seth Budworth, chemist and druggist, dispenser at the Bolton Infirmary for thirty-two years.

GIBSON.—On December 23, at 111 Main Street, Gorbals, Glasgow, William Gibson, for thirty-four years in the employment of the Glasgow Apothecaries Company, Virginia Street, Glasgow.

KEALL.—On December 29, at 241 Elgin Avenue, Maida Vale, London, Mary Ann, wife of Mr. Holmes Keall, chemist and druggist. Aged 56.

QUARMBY.—At Wakefield, on December 15, Mr. Joseph Armitage Quarmby, chemist and druggist. Aged 62.

THOMAS.—At Ystalyfera, near Swansea, on December 27, Mr. Caleb Jones Thomas, chemist and dentist. Mr. Thomas was an old and much-respected inhabitant of the district.

In Praise of the Diary.

WE select a preliminary batch from the many postcards received in reply to our request for "quotation, comment, or suggestion" on any part of THE CHEMISTS' AND DRUGGISTS' DIARY, 1903. We give specimens of each:—

"Beatus ille qui procul negociis" (apply to the advertisements generally).—F. J. V. GUY.

Information, sound advice, and excellent ideas are what any chemist gets if he reads THE CHEMISTS' AND DRUGGISTS' DIARY for 1903. If you study the above and use common sense your business will increase.—R. J. WIDOWSON.

A chemist who possesses THE CHEMISTS' AND DRUGGISTS' DIARY has a most complete trade-directory and market-guide always at hand, which I think he uses very frequently. My suggestion is, therefore, that all firms who have goods to sell should use it as their silent, but ever-present and effective, representative.—FRANK L. SIMMONDS.

"Then read from the treasured volume

* * * * *

And the cares that infest the day
Shall fold their tents, like the Arabs,
And as silently steal away."—*Longfellow.*

NEWTON SPYER.

The formulas for specialities and the suitable labels given therewith are well worth the year's subscription to the chemist and druggist.—F. ORCHARD.

Advertisers should be reminded that a well-executed and designed block greatly enhances the attractiveness of an advertisement to buyers. Perfumes and toilet preparations yield plenty of scope in this direction, but the paucity of artistic skill shown in this section is deplorable.—W. PILKINGTON.

I consider your page of formulæ is the best you have given us for some time; it is of more real, practical value to us country druggists than columns of Scientific Research reports.—FRED. STUAUGHTON.

"Every book is good to read which sets the reader in a working mood" (*Emerson*).—T. ENGLAND.

If you want to advertise,
Or you're wanting to be wise,
Or you want to win a prize,
Try the DIARY, C. & D.
For no note-book is more neat,
Nor no diary more complete,
And you'll find it quite a treat,
For the year 19-03.

JAMES HENDER.

"Prodigious!" (*The Dominic in "Guy Mannering"*).—ARCHIBALD BROWN.

Improves year by year, this edition being by far the best. May truly be described as "the pharmacist's friend and adviser." It certainly helps to make their fortune.—R. MCALL STEWART.

"Nay, an' there were two such, we should have none shortly, for one would kill the other" (*Romeo and Juliet*, Act iii., Scene 1).—S. DAVIES.

A wonderful compilation, and most comprehensive for trade references. Not a dull page from cover to cover.—JOHN JINKS.

"O mickle is the powerful grace that lies in herbs and plants" (*Romeo and Juliet*, Act ii., Scene 3). (Suggested to Potter & Clarke for their motto. *See* advertisement, page 161, DIARY.)—W. T. MIGNOT TUCKER.

The commercial year-book of pharmacy.—W. OSWALD DAVIES.

SPECIALITY PAGES 293-94.

There are sundries galore, and of patents a score, in this well-got-up DIARY shown; and the firms who sell pills, herbs, drugs, chemicals, stills, and all such like are to us made known. But pages 293-94 (seems to me) have the "helpfullest" ring in their tone, as they tell what to take, if a

man wants to make some good sure-selling lines of his own.—A. MARSLAND.

"Nocturna versate manu, versate diurna." (Let these [pages] be your studies by night or by day.)—H. MARTIN.

For all, and to all chemists, in my opinion, there is not a better, cheaper help, than THE CHEMISTS' AND DRUGGISTS' DIARY. Might I make a suggestion—that is, that all chemists may this year buy this valuable helpful book. "He doeth well who readeth well."—EDITH WRIGHT.

ON THE LITERARY CONTENTS.

"Infinite riches in a little room" (*Marlowe*, "*The Jew of Malta*").—C. C. BELL.

"Quotation, comment, or suggestion:

Yes, that is what you say.
But what upon? Bills, indigestion,
Pulv. glyc., or S. A. A.?
I have no just complaint *re* charge,
But why must you needs make it
(The DIARY, I mean) a mile too large
To fit my waistcoat pocket?

JOHN WILLIS, Culverwell.

"What drugs, what charms, what conjuration and what mighty magic" (*Othello*).—GEORGE STRONACH.

Why is THE CHEMISTS' AND DRUGGISTS' DIARY like the Drury Lane Pantomime? Because it is a marvellous production—only to be described in superlatives; not, indeed, to be described at all, but to be seen and wondered at. Like the pantomime, "is the outcome of the best of brains and lavish expenditure"—has no equal.—W. LLOYD SMITH.

Why do not more chemists support Camwal?—WALTER MAISH.

Tell it out in DIARY numbers
Advertising's not a dream;
For the firm is dead that slumbers,
And works not in the "pushful" seam.
Lives of "storemen" all remind us
How to play the game sublime;
And, departing, leave behind us
Shekels on the sands of time.

G. R. PATTERSON.

Full of interest and valuable information. No chemist should be without it.—HENRIETTA A. TANNER.

Burns's words never were more applicable than when used regarding the present DIARY of THE CHEMIST AND DRUGGIST:

"Aboon them a' ye tak' your place;
Well are ye wordy o' a grace
As lang 's my arm."

—ALEX. DAVIDSON, c/o Mrs. Rowan, 7 Melgund Terrace, Edinburgh.

When'er I see the C. & D.
I'm sure therein to find
Something to interest, to amuse,
And elevate the mind.
But when to me the DIARY
By "rail" or "post" is sent,
Its plenteous store of useful lore
Proves a subscrip. well spent.

W. A. S.

SPECIALISTS, PAGE 237.

"As we have doublet and breeches makers, distinct trades to cloath us, and are so much the better fitted, being that each of them meddles only with his own business, and has less to trouble his head withal than a taylor that undertakes all; and, as in matter of diet, great persons for their better convenience, and to the end they may be better served, have cooks of distinct offices, some for soops and pottages and others for roasting, which one cook that should undertake the whole service could not so well perform, so must we be treated in our cures. The Egyptian had reason to reject this general trade of a physician, and to divine to every part of the body a particular operator. For that part was more properly, and with less confusion, provided for, being they especially regarded nothing else" (*Montaigne*, chap. 73, *Cotton's Transl.*).—WILLIAM A. MUNRO.

Trade Notes.

MESSRS. CADETT & NEALL (LIMITED), Ashted, Surrey, ask us to state, in reference to their booklet "Photographic Faults and Failures," that they are prepared to send a free supply to any chemist who will write to them and specify the number required.

PILL AND TABLET LISTS.—From Messrs. Arthur H. Cox & Co., St. Martin's Place, Brighton, we receive copies of their 1903 price-list of pills and tablets. One of the lists gives the formulae and prices of all manner of pills and tablets, the prices being subject to discount to chemists, whilst the mauve list for chemists only is devoted to packed pills and tablets.

POTASSIUM METASULPHITE is now put up by Messrs. Burroughs Wellcome & Co. in tabloid form, each of the tablets containing 10 gr. of the salt. For use as a developer-preserved and in the compound fixing-bath recommended for bromide-papers and lantern-slides it is a great convenience to have metasulphite in a form which saves the trouble of weighing.

STANDARDISED PREPARATIONS.—Messrs. Parke, Davis & Co., 111 Queen Victoria Street, E.C., are submitting to our readers this week a list of fluid and powdered extracts which they manufacture, each of the preparations being assayed and standardised to a definite weight of active principle, or, where that is not possible, by physiological means. The percentages of active principle are given as well as the prices, and the list appears to us to be one of value to dispensers of medicines.

GROSSMITH'S ANTI-CUTTING SCHEME.—In our issue of February 3, 1900, Messrs. J. Grossmith, Son & Co., perfumers, London, announced that the minimum retail prices of half a dozen of their perfume specialities would be 2s. for the 2s. 6d. size, 4s. for the 5s., and 8s. for the 10s. They now intimate that the wholesale prices of the larger sizes are reduced, and, consequently, the 5s. size will sell at not less than 3s. 6d., and the 10s. at 7s. We gather that the firm have had good support from the trade on behalf of their efforts to stop excessive cutting.

AERATED-WATER MANUFACTURE.—Messrs. Burgoyne, Burbidge & Co., 12 and 16 Coleman Street, E.C., bring to our notice a publication of theirs entitled "Notes on the Manufacture of Aerated Waters, Cordials, Brewed Beers, &c." The book contains a good deal of useful information on the subject, with formulae for the manufacture of fruit-syrups, plain syrups, ice-creams, cordials, and aerated beverages. A free copy will be sent to any of our subscribers who are interested in the matter, and the data and hints embodied in the book cannot fail to be instructive to any chemist who manufactures aerated water.

A GROWING LIST is a remark one naturally makes on seeing the new edition of the price-list sent out by W. Martindale, manufacturing and analytical chemist, 10 New Cavendish Street, W. The list now occupies eighty-eight pages, an increase of thirty-two pages, and is consequently rendered more complete. Amongst the novelties we note an eye-bottle designed by Mr. W. Lang, F.R.C.S., for ophthalmic solutions. In this bottle there are no ledges on which the dust can accumulate, the neck is large enough for the finger to be inserted for cleaning purposes, and the cap, which acts as a stopper, is ground on the lower edge to three points, so that when the cap is rested on the table the minimum of contact is made, the idea being to lessen the liability of transferring dust to the ophthalmic solution.

THE P.A.T.A. intimates the following additions during the past month to its list of protected articles:—

Mr. J. H. Buffham, 97 New Oxford Street, W.C.—Resinol ointment and soap.

Brigg's Indian Foods (Limited), 65 Chancery Lane, W.C.—Brigg's Indian foods.

Mr. S. G. Detchon, 5 Farringdon Avenue, E.C.—Dr. Agnew's catarrh cure, cure for the heart, liver pills and ointment.

Thomas Keating, Bride Lane, E.C.—Keating's cough-lozenges and worm bon bons.

Messrs. J. & R. McCracken, 38 Queen Street, E.C.—Johann Maria Farina, gegenüber dem Jülichs-Platz brand of eau de Cologne.

Mr. R. J. Reuter, 6 Well Street, E.C.—"4711" eau de Cologne, Rhine violets, &c.

Messrs. F. Schutze & Co., 83 Southwark Street, S.E.—"Hanza-Platz" eau de Cologne, tooth-powder and toilet soaps.

Messrs. Southall Bros. & Barclay (Limited), Birmingham.—Lofotol.

Messrs. H. H. Warner & Co. (Limited), 83 Clerkenwell Road, E.C.—"Safe" remedies.

Messrs. Jas. Woolley Sons & Co. (Limited), Manchester—"Boval" floor-gloss, Cherry tooth-paste and cream soap, phenate-of-soda solution and tooth-paste.

Messrs. Wright, Layman & Umney (Limited), Southwark Street, S.E.—Wright's coal-tar specialities.

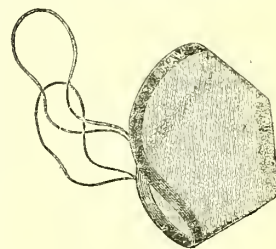
Some of these have been mentioned in the *C. & D.* before. Messrs. Jas. Woolley, Sons & Co. (Limited) in this issue state that they have fixed the minimum prices of their specialities at the face-values. Messrs. J. & R. McCracken, the agents for J. M. Farina gegenüber dem Jülichs Platz, Cologne, inform us that the minimum retail prices of that eau de Cologne will be 1s. for the 2-oz., 2s. for the 4-oz., 3s. for the 6-oz. wickered, and so on proportionately. The wholesale prices are on the basis of 19s. 9d. per doz. for the 4-oz. size. There is, of course, no reason why those who have been getting 2s. 6d. for the 4-oz. size should not continue to do so. Messrs. H. H. Warner & Co.'s prices for the "Safe" remedies are 1s. 1½d. minimum retail 1s., 2s. 9d. minimum retail 2s. 8d., 4s. 6d. minimum retail 4s. 3d., and 10s. 6d. to be 10s. The wholesale and other prices are given in our advertisement section.

DR. CHOWRY MUTHU'S INHALER FOR CONSUMPTIVES.—

The utility of formaldehyde in the treatment of tubercular disease of the lung has been demonstrated, and a few weeks ago Dr. Chowry Muthu, of the Mendip Hills Sanatorium, described in the *British Medical Journal* his method of administering the remedy. His inhaler is now put on the market by Messrs. S. Maw, Son & Sons, 7-12 Aldersgate Street, E.C. It is of pyramidal shape, flexible, and made of perforated zinc, the edges being bound with black velvet. On the cotton-wool in this is sprinkled the inhalant, viz.:—

Formalin (40 per cent.)	...	...	3j.
Chloroform	...	...	3j.
Rectified spirit	...	...	3j.

The inhaler can be used at all times, for the secret of the success of this treatment lies in its being continuously and perseveringly used for as many hours a day as possible.



Remorseless Thyme.

Now capsicum and tell us how
You came to be so great a sage;
Cast caraway from off thy brow,
And read us thy bright history's page.

The heartsease many things you know,
That calls for sound consideration.
The violets the breezes blow,
The rose leaves us to meditation.

The cranesbill may be due—who knows?
Before the lilacs airy splendour,
The lady's finger plucks the rose
While yet the bud is sweet and tender.

The cowslips round the wall to climb,
And see the catnip sage and clover,
And while the sunflower marks the thyme,
As stately now he looks them over.

But wa'ter'meloncholy sight,
When time shall stand a lonely warden,
To see the ice-plant cast its blight
On all the blooms within the garden!

—J. P. BRASHEAR, in *The Bohemian*.

The exports of broom-root from Vera Cruz from July 1, 1899, to June 30, 1901, amounted to 3,444 tons (122,422l.); against 2,265 tons (71,612l.) in 1899-1900.



ON entering business for the first time in a country like Ceylon, one naturally expects to find customers not exactly of the same type as those usually met with at home. The constant stream of semi-nude coolies (who seem all so much alike), the swarthy burghers, the Singhalese with their combs, the girls with their bright cloths and huge earrings, the Moors with their sandals and fez, the naked children, shining like polished ebony, form a picture which is at once full of life and interest. A short description of some of these types, as they impress the chemist, may not be uninteresting to "the man behind the mortar" at home.

Situated, as our store is, in the heart of a planting district, our trade is largely with tea-estates. On two days in the week coolies are despatched with orders from these estates. They are marvellous walkers, as they do not consider a thirty or forty mile journey, with a load varying from fifty to a hundred pounds perched on their heads, a very arduous task. The tailor's bill does not cause them much worry, for their only article of clothing is usually a piece of cloth wrapped round their loins. Some, however, have social ambitions and aristocratic tastes, and don a coat, which is usually an excellent example of native patchwork.

Estate coolies are mostly Tamils, who have come over from India. They shave the front part of their heads, and

its removal by a stranger is to them a mortal offence. In truth, this act would have the same effect on a Singhalese as the pulling of the nose would on an Englishman. A peculiarity of the Singhalese and Tamils is their passionate love for chewing betel. This pervades all classes, from the great "ratamathaya" (chief) to the humble coolie. The composition of the betel-chew varies, however, according to the financial position of the user.

A "ratamathaya's" contains betel-leaf, areca-nut, moist lime, dried tobacco-leaf, catechu, cloves, cinnamon, cardamoms, and other spices. The coolies' chew, on the other hand, is simply areca-nut, moist lime, tobacco, and betel-leaf. The *modus operandi* is the same in both cases. A fresh betel-leaf is taken; on this about a saltspoonful of lime, the areca-nut, &c., are placed. The leaf is then rolled up, and the thing is ready for immediate consumption. The lime brings out the colouring-matter in the nut, which soon dyes the teeth, lips, and saliva a bright and vivid red. A native dearly loves ejecting this red saliva, which one can easily imagine does not afford much pleasure to the onlooker.



A BETEL-CHEWER.

The box in which the lime is kept is, in the case of a wealthy person, a work of art. It is similar to a watch in shape, made of silver or silver and brass, and is beautifully embellished. A small spoon is attached to it by means of a silver chain. The Singhalese name for this lime-box is "killotac," which is also the old name for a watch.

An amusing story is told of a native soldier who fought against the British. He had the good fortune to pick up on the battlefield what he considered to be a very handsome "killotac." He was naturally immensely proud of it, and hastened to show it to his fellows. While admiringly examining it they became conscious of an ominous "tick, tick, tick," arising from the box. They became hugely alarmed, flung the thing hastily away, and took to their heels at the double, shouting, "The 'killotac' is alive." It was, of course, a watch.

The "dhobie," or washerman, is a daily customer of the chemist's for powdered borax. He is of one of the lowest



AN ESTATE COOLIE.

A SINGHALESE VILLAGER.

wear their long back hair tied up into a knot. They are treated with scant courtesy, and do not receive on their departure a profound bow and a polite "Good morning," but get instead the command hurled at them (in the tone of a captain addressing his crew, or a junior apprentice instructing the message-boy), "Po da!" which being translated into polite English, runs, "Get out!"

The Singhalese from the surrounding villages are a quiet, inoffensive people. They wear a long cloth, generally of a red and yellow colour, reaching to their ankles, and a cloth placed plaid-wise across their shoulders. They fasten a comb made of tortoise-shell into their hair, which they never cut. This comb they are inordinately proud of, and



A COOLIE SWELL.

NATIVE WOMAN AND CHILD.

castes, and is consequently not held in high esteem by his fellow-countrymen. He does not follow the excellent advice, "Do not wash soiled linen in public," for he does so openly and publicly in a running stream, and in a very primitive fashion. A flat stone is selected and placed in a shallow

part of the water, and on this the "dhobie" shows his aversion to dirt in a decidedly forcible manner. The result of this treatment is somewhat startling. I have distinctly heard in the weird night, as the gentle breeze played and sighed in and out amongst the palm-leaves, the mournful lamentation, "Life is short," issuing from my linen-chest.

Women with children, not in their arms, but perched on their sides, are constant visitors to the chemist's shop. Their invariable demand is worm-lozenges. One cannot resist liking the little native children, they look so intelligent and bright. A small, black face, with shining eyes, and perfect white teeth, pleading for "since ballie" (sweets), is irresistible.

The young burgher gentleman is a distinct type, and, I am afraid, not always lovable. He is the masher and dandy of Ceylon, and wears very high collars and loud ties (so loud as to be almost audible). He is usually somewhat of a superstitious nature, and desires above all things to ingratiate himself with the ladies. On a demand for loadstone by a gentleman of this class, the following information was elicited:—

The loadstone is given to a charmer, who, on payment of a certain fee, undertakes to work wonders with it. He mixes it with oil, musk, and secret essences, and betakes himself and the mixture to the jungle for a few nights. There he is supposed to fast and to exhort and command his own special retinue of devils to come to his aid. The mixture is then given to his client, who is instructed to use it thus: A little is to be placed on the thumb-nail immediately previous to the expected meeting with the lady-love. The hand, preferably, of the lady must be touched with the mixture, when the much-desired reciprocal love will speedily and copiously be given. Or supposing the gentleman can only worship from a distance, and it is impossible to approach his ideal, it is only necessary to drop a little of this philter on a flower and throw it into her room.

What a money-making idea! Let the chemist look to his stock of loadstone!

Reviews.

South African Trade: Report of the Special Commissioners sent out by the South African Trade Committee. By T. NICOL JENKIN. Pp. 188. Illus. 10s. net. London, 1902: P. S. King & Son.

It will be remembered that in June last three commissioners were despatched to South Africa to inquire into and report upon the state of trade and its possibilities. They have now embodied the result of their labours in a report written by one of them, Mr. T. Nicol Jenkin. After a brief introduction dealing with the magnitude of the South African markets, foreign competition, and trade during the war, chapters are devoted to statistics, method of doing business, packing, shipping, delivery, and capital and labour. Following these are twenty-one chapters, each devoted to a specific trade, including photography and "chemist's department." The information given, however, with respect to the two latter trades is very meagre, and bears evidence of hasty compilation. The chief points are that the Americans are endeavouring to capture the patent-medicine trade, and in this they are assisted by British makers declining to send out medicines unstamped. There is nothing new in this, as the same question has frequently been discussed in this journal. We are also told that the Boers buy huge quantities of medicine and dose themselves with big draughts, but "in order to develop the business," the author says, it is necessary to print the directions for use in Dutch, a point which has not been readily appreciated on this side. Regarding perfumery, one merchant told Mr. Jenkin that it is absolutely impossible to sell British make, as French makers (whose names are given) send out perfumes which Atkinson, Rimmel, and others do not nearly equal. No adequate reason is given why this is so, and such a statement needs qualification. The disinfectants and household soaps are mainly British, but the highest qualities of perfumed soaps are obtained from the Continent. British

dealers hold the market for photographic apparatus, but they are not likely to jump at the suggestion that consignments should be sent out on sale or return, although we learn that continental houses are eager to do it. Considering that the drug-trade of South Africa is essentially British, it is to be regretted that out of the 188 pages of matter in the report, there are barely two pages devoted to that important business.

A Research on the Eucalypts, especially in regard to their Essential Oils. By R. T. BAKER and H. G. SMITH. Sydney, N.S.W.

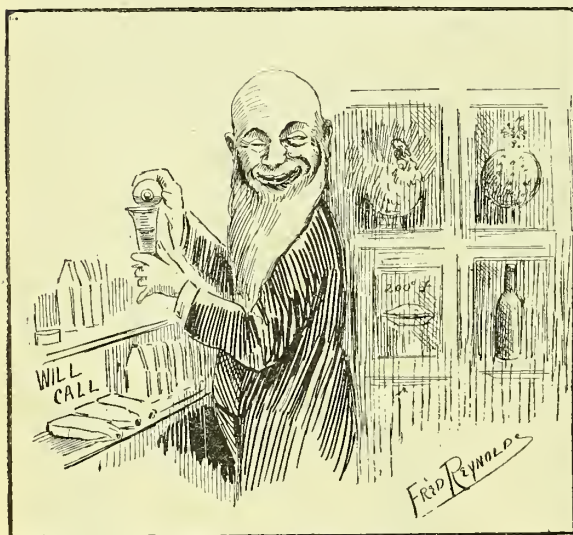
THE authors of this monograph have every possible opportunity of placing on record reliable details of the eucalypts of New South Wales. Their work is under Government auspices, and the publication of it at the present moment is apparently intended to afford a stimulus to the trade in eucalyptus oil from New South Wales. Indeed, the commercial aspect of the question is approached from the State rather than from the Commonwealth point of view, as evidenced in the preface, where we read: "The demand for oils or eucalyptol can now be met by the distillation of species growing in the State, and from which the present requirements of the world could be supplied." But the work is a full *resumé* of what is known of nearly all the eucalypts in Australia, and is a valuable compilation both from a botanical and, to a certain extent, a chemical point of view. Without wishing to detract from its value, we may call attention to the somewhat loose method the authors have of expressing their results. For example, throughout the whole book we find the optical rotations described as the specific rotation, $[\alpha]_D = \&c.$ If the authors mean specific rotations, then it is unwise to so record figures; but if they mean, as probably they do, the optical rotation of a column 100 mm. long, the expression is quite incorrect. Nor can we approve of such expressions as "The saponification-number of the esters = 54, and of the free acid = 08." What the authors mean is, "The ester value of the oil is 54, and the acid value 08." There are numerous little points of this kind to which the authors would do well to give attention, as an important and useful monograph such as this is should, above all things, be couched in correct and determinate language. Taking the book as a whole, we consider it a monumental record of a mass of very painstaking work. When one remembers that the authors have had to collect specimens in large quantities, not over an area of a few miles, but over a continent, we cannot but admire the vast scope of their work. The details given for the essential oils of the enormous number of species quoted are most interesting, but, of course, one must not be surprised that the figures quoted do not always correspond with the various oils, as climatic and other conditions play an important part in determining the quality of eucalyptus oils, and the oils from the same species may vary much from season to season. Apart from these minor differences, the figures are of great interest and value.

The Manufacture of Chocolate and other Cocoa Preparations. By Dr. PAUL ZIPPERER. Second edition. $9\frac{1}{2} \times 6\frac{1}{2}$. Pp. x + 277. 16s. net. London: E. & F. N. Spon (Limited).

DURING the past quarter of a century chocolate has increased more in popularity than any other foodstuff, partly because of cheaper methods of manufacture, but especially owing to increased appreciation of the value of the sustaining and nourishing properties of its basis—cocoa. When the late Queen Victoria, wishing to give her soldiers in South Africa a New Year's gift, selected $\frac{1}{2}$ -lb. boxes of chocolate for the purpose, many were inclined to smile, but it was the universal experience of our troops during the Boer War that nothing was so grateful as a refresher, so hunger-killing, and so portable as chocolate. In many directions cocoa finds an outlet—e.g., as a confection and food adjunct—with the result that cocoa cultivation is increasing all over the world where soil and climate are suitable. Dr. Zipperer in his book mentions that in Ceylon alone since 1878 the area under cultivation increased from 300 acres to 18 278 in 1895, and the exports of cocoa-beans from 10 cwt. to 27,519 cwt. in that period. Ceylon is, of course, phenomenal in vigour when attacking a new industry, so that the increase elsewhere must not be judged by what

has been done in Ceylon; nevertheless, cocoa-cultivation is a paying thing, and the British and German Governments are doing what they can to encourage it. About a hundred pages of Dr. Zipperer's book are devoted to the statistical and scientific aspects of the subject, the botany and cultivation of cocoa being well treated, and all the ingredients which enter into chocolate are considered chemically and technically. Chocolate-manufacturers will gather much information from this section, but we fear they will not be so satisfied with the section which deals solely with the manufacture of chocolate. This is disappointing especially on the ground that the apparatus represented is, with a few exceptions, that of a particular German firm, so that the readers have not the advantage of judging the value of many excellent machines which other firms have of recent years introduced to meet the demands for improvements.

The Kaleidoscope.



At Christmas Time.

[In quires and places where they sing, the tune of "In Old Madrid" will suffice.]

Gay Christmas comes—it always did—
But brightly beams the chemist's best cigar,
As safely in his backshop hid
He dreams of indigestion and catarrh;
For many clients e'er the night is o'er
Lie groaning on uneasy bed,
And sounds from out their casements pour—
A grim nocturnal serenade.
Hark! the victim's doleful moan;
Anon he starts, and then a roar;
For with a phantom turkey-bone
He wrestles ever more.

"Pepsin, come—in pain I'm pining—
Send it flying, I am dying;
Lift the load on me reclining;
Hopefully I wait for thee."

All in a row, the mixtures lie,
While messengers are coming from afar;
In breathless haste they homeward hie,
Nor heed the singing of the door ajar.
High on the counter-ledge prescriptions pile,
The pill-tile rattles fast and free;
The chemist grins, but briskly jerks the while,
And hums the "Christmas Pudding Glee."
Rang the pestle's cheerful clang
Clear and crisp from open door;
But ah! the Christmas victims sang
Their dirge for evermore—

"Bismuth carb., for thee I'm pining—
Death defying, I am lying;
Soda bic. with thee I'm dining,
Soufully I yearn for thee."

Scientific Progress.

Naphthalin in Essential Oils.—The chemists of Messrs. Heine & Co., of Leipsig, claim to have identified traces of naphthalin in the essential oils of clove and storax. This is the first time this compound has been detected in essential oils.

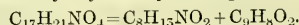
China Cuprea.—Dr. O. Hesse communicates to the *Arch. der Pharm.* (240, page 652) a note on the history of cuprea bark, which at one time was an important factor in the quinine-industry, but is valueless now that Java supplies such rich cinchona-barks. He shows that although it was in 1871 that Flückiger wrote about the bark, it was mentioned by J. E. Howard as early as 1857, which fact Flückiger referred to. The object of Dr. Hesse's note is to correct statements in regard to the bark made by Tschirch.

Atropine Conversion.—Amenomiya (*Arch. der Pharm.*) has confirmed experimentally Gadamer's deductions as to the optical inactivity of atropine and the activity of hyoscyamine being a function of their tropic-acid residues, and that the optically active atropines hitherto recorded are probably mixtures of atropine and hyoscyamine. Inactive atropine was hydrolysed by prolonged boiling in weak alcohol, and the tropine and racemic tropic acid isolated. By means of the quinine salt racemic tropic acid was split up into its active components. Each of the two active tropic acids was then recombined with tropine, the gold-chloride salts of the two bases purified, and the optical activity of the hydrochlorides identified with *d*- and *l*-hyoscyamine.

Camphor Oil.—The common use of light camphor oil as an adulterant of expensive essential oils renders the details of a paper by Sujiyama published in the *Journal of the Pharmaceutical Society of Japan* (1902, 242), of considerable interest. The paper, an abstract of which appears in the October issue of Schimmel's *Report*, deals with the manufacture of safrol from camphor oil, but incidentally gives the following valuable table of particulars of six samples of light camphor oil, whose specific gravities varied from 0.870 to 0.910:—

No.	175°-180°	180°-185°	185°-190°	190°-195°	195°-200°	Over 200°
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1	26.25	37.50	12.25	4.25	2.00	4.25
2	37.75	30.50	13.50	4.50	3.50	3.75
3	25.75	41.25	19.25	4.75	2.75	3.75
4	36.25	33.50	11.00	4.50	4.25	6.50
5	33.25	32.50	11.00	6.75	2.00	5.50
6	27.50	44.00	11.25	5.75	4.00	5.25

Scopolamine Derivatives.—Schmidt (*Apotheker Zeitung*, 1902, 592) publishes some further details of his views on the chemistry of scopolamine and scopoline. Scopolamine (hyoscyamine) is hydrolysed by baryta water yielding atropic acid and scopoline, whereas atropine or hyoscyamine yield tropine and atropic acid:—



It appears that scopoline is related to tropine in the sense that one CH_2 group of the latter is replaced by a CO group in the former. Tropine probably has the formula ascribed to it by Willstätter, so that scopoline might probably be expected to have a ketonic function. Schmidt, however, shows that it gives no reactions of a ketone, so that it is clear that the CO group is otherwise combined. By heating in a sealed tube with hydrobromic acid, scopoline is transformed into the hydrobromide of bromo-scopolamine, $C_8H_{12}BrN(OH)_2HBr$. A careful study of this reaction causes

Schmidt to conclude that scopoline contains the grouping $\begin{array}{c} \diagup C \\ O \\ \diagdown C \end{array}$.

Isobarbaloin.—A further contribution to the chemistry of isobarbaloin by M. Léger appears in the current issue of the *Journal de Pharmacie et de Chimie* (1902, 592). He points out that isobarbaloin is found in Barbados, Curaçao, and Jaffarabad aloe, especially in the last-named variety. It accumulates in the last fractions when crystallising the mixed aloins from methyl alcohol. The provisional formula of isobarbaloin is $C_{21}H_{35}O_9$, although it is not definitely established that it is an isomer of ordinary barbaloin. It crystallises from methyl alcohol with four molecules of water, and from water with three molecules. A dibenzoyl derivative $C_{21}H_{35}(C_6H_5O_2)_2O_9$ is obtained by treating a solution of isobarbaloin in pyridine with benzoyl chloride. Isobarbaloin is *laevo*-rotatory, $[\alpha]_D^{20} = -19.4'$ being the value when acetic ether is the solvent. In water, however, it is slightly dextro-rotatory. Through the action of nitric acid it yields a body which appears to be identical with chrysammic acid. The easy oxidation of isobarbaloin is the cause of its colouration with cold nitric acid (Klunge's reaction—till recently attributed to barbaloin). The paper concludes with a description of some crystalline derivatives of isobarbaloin.

Observations and Reflections.

By XRAYSER.

New Years

are always big with promises, anticipations, and hopes. Whatever may be our December difficulties we expect them all to be dissipated after the first of January. That new years have defrauded those who have trusted them ever since Calendars were created in no degree discourages the hoppers. Who is there who is not a gambler in this respect! Who does not believe that there is something in the lucky-bag of 1903 for him? And this brings us to our own muttons. Even pharmacists are anticipating that the wheel of fortune may turn in their direction in 1903. There are gloomy vaticinators who can see nothing in the near future, but a contest with the Privy Council. To get through that battle without being too badly mauled is the brightest outlook in their picture. An Elector of Brandenburg was reproached for having yielded too readily to conditions imposed by Gustavus Adolphus. His sensible but not heroic reply was, "Que faire! Il a des canons." The arguments of the man with cannons should always be treated with respect, but they are not invariably convincing.

The Privy Council

is a formidable body it is true, and if its policy towards pharmacy is what we all believe it to be, the danger is considerable. But, pending hostilities, at least we may look on the bright side. It is not certain that anything better could have happened to us than this attack on the Pharmacy Act which the Duke of Devonshire and Mr. Harrison are contemplating. We have got a Pharmacy Bill ready to launch based on principles which we believe are sound and just. I do not know whether any M.P. has been honoured with a commission to introduce this Bill. No one except the Lord Chancellor, so far as I know, has been mentioned, and Lord Halsbury's inclinations that way may have evaporated. A big, bouncing absurdity and a silly injustice planned by their Lordships of the Privy Council will bring to our side a lot of Parliamentary friends with whose aid a flank movement in favour of our Bill will be possible and perhaps successful. If our case is a good one we cannot be too thankful to the Privy Council for securing a hearing for us.

Last Year, 1902,

was a busy one in pharmacy, unprecedented perhaps in its oratorical and organised activity, but so far singularly deficient in actual results. Nothing accomplished, nothing done, might almost be its epitaph. The Pharmaceutical Council has, as usual, referred, or rather consigned, various interesting subjects to the mausoleums, which it playfully designates its committee rooms; Parliament has mocked us by a dream of duty-free spirit, to balance the substantial horror of a fifteenpenny income tax; the law courts have heard the beginnings only of several cases which concern us; a thousand pounds has been subscribed largely by pitying friends to be spent for our benefit in litigation; pharmacists and the manufacturers of certain proprietary medicines have had the satisfaction of telling in print what they think each of the other, and so far neither party is any the worse or, except for the glow of gratification which follows a liberation of the soul, any the better for this interchange of opinion; and so the story stops for the moment: to be continued in 1903, when it may be hoped poetic justice will be dealt out to the villains of the play.

Discretion in Dispensing,

a happy title by the way, was a subject most thoughtfully presented and usefully discussed

at Edinburgh last week. It has, no doubt, had the careful attention of some thousands of dispensers since. Discretion in dispensing, as Mr. Donald McEwan shows, means generally the limitation of discretion as ordinarily understood. It means acting as an intelligent machine so long as this may be consistent with the safety of the patient, but it means the suspension of the mechanical action the moment there is any risk. That is where the intelligence comes in. A good deal was said about consulting the prescriber in cases of doubt. Such a course would be advisable in all the instances referred to. But I have known dispensers, generally young ones and recently qualified, a little too eager to consult the prescriber, perhaps rather with a view of showing off their own wisdom than of simply serving the patient. Another indiscretion which is not quite unknown is that of discussing the prescription with the patient. Even when it is necessary to reply to a customer's questions concerning it, discretion and modesty should characterise the answers.

Some Uncertainty

prevailed in the Edinburgh discussion about the meaning of the word "cyathus." One speaker shared the common error that "cyathus" without the "vin" should be translated simply glass. But cyathus was a definite Roman measure. It was the twelfth part of a sestarius, which nearly corresponded with our pint; so that a small wineglass fairly represents the Roman cyathus. Dr. Sillar said the cyathus was the ladle by which wine was scooped out from the poculum or vessel containing the beverage, and served to the cups of the guests. That the cyathus was the ladle is pretty nearly certain, but the poculum was the cup from which it was drunk. The wine or punch was called the crater. The cochlear or spoon was in the measure system the one-twenty-fourth of a cyathus. The instrument was used partly as an egg-spoon, but it was furnished with a pointed tip and used also to extract snails or winkles from their shells for eating, as we use pins; and the snail being a "cochlea" gave its name to the spoons. The French "cuiller" is directly derived from cochlear.

The Prize Problem

among the sample prescriptions quoted by Mr. McEwan was I think No. 8. Eccentricities of dosage are common enough, but 10 gr. of bromide of sodium and 20 drops of compound tincture of cardamom divided into 8 doses were impossible. The dispenser could be practically certain that the prescriber intended only a single dose. And yet I think the commentator was right in holding that the former had no right to depart from his express instructions, if he could not consult the prescriber. But even in such a dilemma something better than merely mechanical obedience can be adopted. A friend of mine, a discreet dispenser in the country, had a similar prescription to compound. It was written by an eminent London physician, and it had not been previously dispensed. He told the lady who brought it that the prescription was perfectly clear, but that in regard to one point he should like to have the advice of the prescriber. He would make her a couple of doses to go on with and send her the mixture next day. He got the doctor's address from the *C. & D. Diary*, wrote an explanatory note to him and enclosed a stamped telegram form. He had a reply in the morning and a letter of thanks by a later post.

CUTTING was not confined to moderns, as the following very sanguinary advertisement which appeared in the *Stamford Mercury* of March 23, 1716, sheweth:—"Whereas the majority of apothecaries of Boston have agreed to pull down the prices of bleeding to six pence, let these certify that Mr. Richard Clarke, apothecary, will bleed anybody at his shop gratis."

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Editorial Comments.

Pharmaceutical Problems.

THE TRADE IN POISONS.

It is admitted that the 1903 problem of greatest importance to the drug-trade of Great Britain, indeed of the British Empire, is embodied in the unpublished report of the Departmental Committee on the Poisons Schedule. Its influence will be imperial, because the poison and pharmacy laws of more than forty sections of the Empire outside Great Britain are based upon the Pharmacy Act, 1868, and any modification of that Act will, as the opportunity arises, be taken advantage of for relaxing the conditions in the newer countries, especially in regard to the qualifications of vendors of poisons. That, we understand, is the colonial feeling. The principle of the qualification of the retail vendors is now in danger of abrogation, and it is well to remember that the Select Committee of the House of Commons, which took evidence in 1865 as to poisons legislation, recommended—

That the Bill do provide that no other person [than registered chemists and druggists] shall, after a day to be fixed by the Bill, sell certain dangerous drugs, to be scheduled in the Bill, unless he be examined and registered.

This principle is universally recognised throughout the British Empire, and all attempts hitherto made in Great Britain to modify it have not been favoured by the Legislature. The first attempt was in 1883, when the Council of the Pharmaceutical Society of Great Britain, after consultation with the Privy Council, drafted a Bill to amend the

Pharmacy Acts, which, amongst other things, created a schedule of poisonous articles that might be sold by anyone if the articles were properly labelled. The promoters of this measure hoped to get a compulsory curriculum and other professional advantages in return for their concession to Whitehall, but they got nothing, and suffered the supreme disadvantage of giving way on the principle of the 1868 Act. In 1885 the Lord President of the Council introduced into the House of Lords a Bill dealing with the whole question of poisons, and embodying a list of poisons whose sale was not restricted to examined and registered chemists and druggists. A general election stopped that attempt, and thirteen years had elapsed before the present Lord President (the Duke of Devonshire) introduced into the House of Lords on June 13, 1898, the notorious Poisonous Substances Bill. This may be regarded as the outcome of an attempt made earlier in the Session by Mr. Alexander Cross, the member for Camlachie, to amend the Pharmacy Bill, then before the House of Commons, by introducing a clause which, if it had been enacted, would have prevented the 1868 Act and amending Acts applying to or interfering with

the business of persons who are engaged in the sale, distribution, or manufacture of insecticides, destroyers of vermin or disease germs in plants, of ant-destroyers, of preparations for the prevention of diseases in potatoes, grain, or other field or garden crops, or for the preservation or protection of plants from disease in green-houses or in the open air, or for other such or similar purposes.

This clause covered fairly well the business of Mr. Cross's firm, for which they had been called to task by the Pharmaceutical Society. The clause was ultimately withdrawn by Mr. Cross, because he had been negotiating with the Privy Council and had learnt that this Department was bringing forward the Poisonous Substances Bill. It is interesting to note that Mr. Cross was the first person to give expression to the idea that poisons, such as sheep-dip and weed-killers, put up in packets do not require for sale "the high technical education of the pharmaceutical chemist." The Poisonous Substances Bill was a measure of three clauses and a schedule, the latter being a list of poisonous substances which might be sold by any person provided that the packet of the substance was labelled with the name of the article, the word "Poison," and the name and address of the seller. The Act was to apply to Ireland as well as to Great Britain, and several subsidiary provisions were contained in it. These we ignore for our present purpose, and merely name the articles contained in

THE SCHEDULE.

Butter of antimony.
 Carbolic acid.
 Chloride of zinc and its solutions.
 Cresylic acid.
 Hydrochloric acid } Unless diluted in the manner prescribed by
 Nitric acid } the British Pharmacopoeia for the time
 Sulphuric acid } being in force.
 Sugar of lead and other salts of lead.
 Preparations of carbolic acid or cresylic acid, or their homologues,
 used as disinfectants and containing more than 10 per cent. of
 any of them.
 Substances sold for the purpose of poisoning insects or vermin.

The Bill passed the third reading in the House of Lords on July 1, 1898, but it was so effectively opposed by all sections of pharmacy that the influence brought to bear upon members of the House of Commons, and, through them, upon the Ministry, compelled Mr. A. J. Balfour on July 12 to announce that it was abandoned. The next attempt to modify the qualification principle of the 1868 Act was started by Mr. T. G. Dobbs, a Worcester solicitor, who successfully defended a seedsman who had been proceeded against by the Pharmaceutical Society for taking an order for arsenical weed-killer. Early in 1900 Mr. Dobbs started

the Traders in Poisons and Poisonous Substances for Technical and Trade Purposes Protection Society, and drafted Bills to amend the British and Irish Pharmacy Acts. In these Mr. Dobbs elaborated Mr. Cross's idea of poisons in packets, and proposed to allow any person who obtains an Excise licence to sell scheduled poisons or compounds thereof in sealed packets, properly labelled and supplied by persons registered under the principal Acts, provided such poisons or their compounds were not used as medicines. He afterwards dropped the Irish Bill, and, although the other has never been laid before Parliament, Mr. Dobbs has quite cleverly and quietly gathered a great deal of support amongst agriculturists, horticulturists, and shopkeepers for his proposals. The influence which he secured won over the Board of Agriculture, and the appointment of the Privy Council's Committee followed naturally. The greater volume of the evidence heard by that Committee was directed to the support of the principle embodied in the Poisonous Substances Bill of 1898, *plus* the sealed-packet idea. It is in the highest degree unfortunate that the principle underlying these ideas was first formulated in 1883 by the Pharmaceutical Society's representatives. They have since tried to neutralise that blunder, and strenuously opposed the Poisonous Substances Bill. We expect equally active resistance this year to any attempt made by the Government in the same direction. The Council of the Society is substantially the custodian of British pharmacy law, and, although some of the members seem to think their duties in that direction depend upon the support of the Society by the trade, the Council as a whole cannot overlook the fact that when the Society was made the statutory authority under the 1863 Act, it was provided with an exceedingly handsome income to meet the expense of carrying out its statutory functions. The defence of chemists' and druggists' rights under the Pharmacy Act is part of these functions.

Peppermint-products.

ACCORDING to the latest letter advices from Japan, there is every indication that we are to have continued high prices for menthol and Japanese peppermint oil for some months to come, although it is unlikely that they will be maintained at the extreme prices which ruled during the autumn of 1902. Our Japanese correspondent, who is well posted on menthol and peppermint oil, furnishes us with information bearing out this statement. Under date of November 27 he reports that, owing to the unfavourable weather during harvesting, the peppermint crop in Japan is only about half an average one, and prices have considerably advanced. Previous to the appearance of the new crop, some Yokohama dealers sold a large quantity to foreign exporters at prices ranging from 8.50 yen to 9 yen per catty for menthol, and 1.90 yen to 2.30 yen per catty for peppermint oil. Naturally this was sold in anticipation of a decline when the new crop was marketed. Contrary to expectation, however, prices advanced considerably when the new crop appeared, as it proved to be extremely light. Forward sellers began to cover their requirements, or at least tried hard to secure the quantity they had contracted for, but they were only partially successful. Prices then advanced considerably in the producing districts of Yamagata, Ujen, and Bingo, and merchants were forced to deliver at a loss, after trying to buy stock in other markets. At the time our correspondent wrote, the nominal quotations were 16 yen per catty for menthol, and 6 yen for oil, with practically nothing to be had at the moment. The consumption of menthol and peppermint oil is increasing both in Europe and the United

States, as is shown by the following figures relating to the exports from Japan from 1892 to 1901:—

	Menthol		Peppermint Oil	
	Catties	Value in Yen	Catties	Value in Yen
1892	16,689	38,207	18,632	56,232
1893	12,028	121,637	31,802	54,866
1894	21,135	242,769	57,807	143,107
1895	30,836	112,870	31,900	197,411
1896	60,000	234,272	84,059	318,657
1897	30,728	55,959	26,876	124,751
1898	25,596	52,043	19,811	106,202
1899	45,605	73,123	30,605	195,424
1900	30,485	50,971	20,836	172,501
1901	65,394	108,237	55,287	437,050

In connection with the above it should be noted that the exports of both articles in 1901 were more than double those of the previous year, which would show that the stocks in Europe had become reduced to the extent that a rapidly increasing demand set in, even at the higher prices ruling. The above figures are the actual exports only, and as the Japanese consumption is estimated at about 20,000 catties, the total of the 1901 crop of menthol and oil may approximately be estimated at 135,000 catties. The exports of menthol and peppermint oil from Japan during the first seven months of 1902 were as follows:—

	Menthol		Peppermint Oil	
	Catties	Value in Yen	Catties	Value in Yen
January ...	6,625	49,645	8,525	18,723
February ...	4,034	28,111	8,935	23,190
March ...	4,618	34,733	1,430	3,497
April ...	3,170	23,975	4,645	9,764
May ...	1,942	15,467	1,825	4,850
June ...	3,018	20,751	431	1,081
July ...	1,635	12,792	1,365	5,525
	25,042	185,474	27,206	66,630

As regards menthol, about 7,000 catties was shipped to Hong-Kong, mostly in transhipment for Europe, 4,000 catties was shipped to London, 3,000 to Havre, 2,000 to Hamburg, 1,800 to Seattle, 1,100 to New York, the remainder being divided between Antwerp, Bombay, Milan, &c. Of the peppermint oil, Hong-Kong received approximately 9,200 catties, London 6,000, Hamburg 3,600, Havre 1,600, and Calcutta 1,500 catties.

B.P. Copaiba-tests.

There has been some trouble in wholesale circles recently regarding copaiba, which has been rejected on account of its not meeting the B.P. tests. Whatever may be said in regard to the legal position of the British Pharmacopœia, there is not the slightest doubt about the fact that it is now the Mincing Lane merchant's guide, and as he is usually a person who has no time for hair-splitting, if a thing is supposed to be B.P. and is not, he says it is wrong and the B.P. is right. In regard to copaiba, however, the B.P. happens to be wrong. The oil distilled from copaiba is stated in it "to rotate the flame of a ray of polarised light 28° to 34° to the left." As a column of 100 mm. is the normal for polarimetric determinations, and is mentioned under various oils in the B.P., analysts have assumed that this is meant also under copaiba.

It happens, however, that the figures given were taken from a paper by Mr. J. C. Umney, and they were for a 200-mm. column. Some genuine copaibas yield an oil as low in rotation as -9° per 100 mm.

Chemists Barred.

A subscriber sends us a letter he has received from a provincial company, which describes itself as "manufacturers of domestic specialities, sugar- and pearl-coated pills, headache-powders, citrate of magnesia, health salts, sulphur salts, sulphur and sarsaparilla salts," &c. Our correspondent wanted quotations, and was informed that "the company confines its business to confectioners, and does not call on chemists." If the business is so good as to warrant this limitation of effort, what a sad day it will be for the drug trade when its members have to reckon with the competition generally of the confectioner, as well as the butcher, baker and candlestick-maker!

British Pharmacopœia Corrections.

There have been six editions of the 1893 British Pharmacopœia. There were two in 1898, the first 20,000 and the second 1,500; in 1899 another two, 5,000 and 3,000 respectively; in 1901 an edition of 1,500, and the same in 1902. Besides rectification of a few typographical errors the following are the corrections which have been made since the edition published on April 29, 1898:—

Issue of August 1902.

CORRIGENDA.

Page 1, line 23; for *solution of borax* read *solution of borax*.
 " 283, " 32; for *Tinnively* read *Tinnevelly*.
 " 511, " 27; for *Tinnively* read *Tinnevelly*.

Issue of July 1901.

CORRIGENDA.

Page 76, last line; for *Ell.* read *Nuttall*.
 " 169, line 18; for *medica* read *Medica*.
 " 235, line 15; for *Linn.* read *Miller*.
 " 290, lines 3 and 25; for *nigra*, *Koch* read *sinapioides*, *Roth*.

Issue of February 1899.

CORRIGENDA.

Page 10, line 21; for *neutralised* read *nearly neutralised*.
 " 89, " 23; omit *glycerin*.
 " 90, " 1; for *to the left* read *slightly to the right*.
 " 266, " 3; omit *chlorides*.

Issue of October 1898.

The following CORRECTIONS were made in this issue:—

Page 237, line 31; 0.0285 was altered to 0.0283.
 " 462, col. 4, line 6; 1 grm. was altered to 0.5 grm.
 " 495, " 3, " 12; 5 to 10 m. was altered to 2 to 8 m.
 " 511, " 1, " 35; Compound 1 was inserted after Tincture of.

It is advisable for those who own the Pharmacopœia to note what edition it is and carry out the appropriate corrections.

An Objectionable Advertisement.

A man who poses as "an eyesight specialist" is issuing in London an advertising booklet about defective sight, in which an attempt is made to cast a slight on chemist-opticians. It is alleged that there is even more risk in obtaining glasses from chemists than from unskilful dealers. Why, think you?—because

we have recently heard of cases of severe inflammation and almost loss of sight caused by some dangerous drug that the chemist had been handling having come in contact with the eyes. If there be no other spectacle-seller in the town, and it is unavoidable, then insist that the chemist most carefully cleanses his hands and the spectacle-lenses before serving you.

The "eyesight specialist" is no doubt well aware that within limits it is pretty safe to slander a whole body of men, but it is more than possible that chemist-opticians who live near this man could obtain heavy damages in a court of law as the result of circulating such a spiteful statement

Perhaps the fact that chemists are so successful in supplying the public with spectacles has dimmed the "eyesight specialists'" sense of fair dealing; at least it is satisfactory to know that statements such as these almost invariably recoil on those who make them.

The Gardener's View.

The *Gardener's Chronicle* has occasionally in the past contained inspired paragraphs respecting poison matters connected with horticulture, which fact gives significance to the following statement in the last issue:—

It is understood that the Departmental Committee on Poisons will report to the Privy Council and to Parliament in favour of an alteration in the law, and that the Government will shortly bring in a Bill amending the Pharmacy Act on the lines suggested by the Poisons Committee, providing for the sale by licensed persons, in properly labelled and sealed bottles or packages, of articles already described, as supplied by manufacturers or by wholesale dealers. The pharmacists are certain to endeavour to retain their present privilege; it is for the traders who favour a change in the law to take care that the proposed alteration is made thoroughly effective in their own interests.

Our contemporary advances as a reason for permitting poisonous sheep-dips, insecticides, disinfectants, and photographic chemicals to be sold by agricultural agents, nurserymen, seedsmen, ironmongers, and oil and colourmen that they have more practical knowledge of the uses of such articles than chemists have!

Sale of Godfrey's Cordial.

Queries recently addressed to us have indicated that there are many in the trade still under the impression that fictitious Godfrey's Cordial may be sold in pennyworths under that name or as Godfrey Cordial without payment of Stamp Duty. Although it is specially mentioned in the schedule of the 1812 Act a *C. & D.* subscriber has written to the Secretary of the Board of Inland Revenue about the matter, putting to him a special case, namely, that the preparation is made and kept in bulk and retailed in pennyworths, customers bringing their own bottles to which a label is attached—"Godfrey's Cordial," with "Index of Doses," and name and address of the retailer. The Secretary was asked if under these circumstances the medicine is liable to duty, and a duplicate label was returned marked "liable to duty." This is correct so far as the label is concerned and the uttering or vending of any packet, box, bottle, pot, phial, or other enclosure containing Godfrey's Cordial. Even if pennyworths are put in customers' own bottles, which the retailer corks and labels, the duty may be enforced.

Chemical Experiments.

Mr. D. A. Bevan, Royston, writes to the *Times* a warning against "Statham's Boy's Own Laboratory"—a box of chemicals with instructions for performing experiments in chemical magic. Mr. Bevan gave his boy one of the cabinets, and the youngster proceeded to perform Experiment 99:—

Take a crystal of chlorate of potash, and, having powdered it in the mortar, throw in about half as much powdered sulphur. If the mixture be now rubbed forcibly with the pestle it will be accompanied by a series of crackling reports like the smacking of a carter's whip, attended with small flashes of light.

As no result happened the boy put in some more chlorate and sulphur, when, of course, he got an explosion more like an earthquake than the crackling of a whip. The embryo chemist and his sister were much injured in the *mêlée*, and the father writes to warn parents against such toys. The fact that Statham's cabinets have been sold for many years, and, as far as we know, no such accident has been reported, seems to show that as a rule the users of the "Laboratory" stick to the directions. In the future it would be well to emphasise the need of Experiment 99 being conducted with only the tiniest quantities of the potassium chlorate and sulphur. The mortar used in the experiment was, Mr. Bevan

says, blown to atoms. Mr. Frank Statham has since replied in the *Times*, making substantially the same statement that we do.

Failures in 1902.

During the past year 48 persons ranked under the heading "chemists and druggists" became bankrupt in England and Wales, against 73 in 1901; 60 signed deeds of arrangement, against 66; and 116 granted bills of sale, this being 30 more than in 1901. For all trades there was a net increase of 5 bankruptcies in 1902, a decrease of 75 in deeds of arrangement, and increase of 246 in bills of sale. The grocery-trade had 61 more bankruptcies and fewer deeds and bills, and the drapery-trade 17 fewer bankruptcies and 81 fewer deeds, so that the drug-trade has little to boast about and something to be ashamed of in regard to bills of sale. *Kemp's Mercantile Gazette*, referring to this, says:

It is rather curious to note that the number of bills of sale for England and Wales has considerably increased during the last twelve months, this increase amounting altogether to 246, and the comparative figures being 6,462 for 1901, rising to 6,708 for 1902. It is not always easy to explain these movements in bills of sale business, as they apparently depend upon diverse considerations. No trader who is not very hard up ever gives a bill of sale; but, on the other hand, lodging and boarding house keepers are frequently compelled to raise money in this way, as being their only possible resource. Again, a loan, even on these terms, may sometimes avert bankruptcy—at all events, until the following year—and so help to explain these statistics which seem, at first sight, conflicting.

This looks a fair statement of the matter, but one cannot help feeling sorry for those who have to take such a cut-throat means of staving off the evil day as giving bills of sale.

New Books.

Abbot, A. C. *Principles of Bacteriology*. 6th ed. Cr. 8vo. 12s. 6d. net. (H. K. Lewis.)

Adie, R. H. *New Matriculation Chemistry*. Part 2. 7½ x 4½. Pp. 68. 2s. (Clive.)

Burdett, Sir H. *Nursing Profession: How and where to Train*. Cr. 8vo. 2s. net. (Scientific Press.)

Cross, M. I. and M. J. Cole. *Modern Microscopy*. 3rd ed. 8½ x 5½. Pp. 308. 4s. net. (Baillière.)

Kranch, C. *The Testing of Chemical Reagents for Purity*. Translated by J. A. Williamson, F.C.S., and L. W. Dupré. Roy. 8vo. Cloth 12s. 6d. net. (MacLaren & Sons.)

Muir, M. M. P. *Story of Alchemy and the Beginnings of Chemistry*. 6½ x 3½. Pp. 186. 1s. (Newnes.)

Ostrom, Kurre W. *Massage, and the Original Swedish Movements*. 5th ed. 7½ x 4½. Pp. 182. 3s. 6d. net. (H. K. Lewis.)

Ray, P. C. *History of Hindu Chemistry from the Earliest Times to the Middle of the Sixteenth Century A.D.*, with Sanskrit texts, variants, translation and illustrations. Vol. 1. 10½ x 6½. Pp. 1-111, a-d, i-lxxiv, 1-176, 1-41. 12s. 6d. (Williams & Norgate.)

Reeks, H. C. *Common Colics of the Horse: their Causes, Symptoms, Diagnosis, and Treatment*. 7½ x 4½. Pp. 238. 5s. net. (Baillière.)

Standage, H. C. *Sealing-waxes, Wafers, and other Adhesives*. 7½ x 4½. Pp. 104. 5s. net. (Scott & G.)

Vogel, E. *Practical Pocket-book of Photography*. Trans. and ed. by E. C. Conrad and E. M. Coham. 6½ x 4. Pp. 230. 2s. 6d. (Sonnenschein.)

Whitla, W. *Elements of Pharmacy, Materia Medica, and Therapeutics*. 8th ed. 7½ x 4½. Pp. 634. 10s. 6d. (Reushaw.)

THE exports of Jamaica logwood in 1901-2 show an increase of 20.8 per cent. in quantity and over 5 per cent. in value, being 41,107 tons against 34,006 tons in 1900-1. The trade with the United Kingdom has fallen from 11,589 tons in 1897 to 1,765 tons in 1901. Havre is now the principal centre, having surpassed Hamburg. The protective shipping-policy of the French Government, and the effect of their *sur-taxe d'entrepôt*, has been to draw consignments direct to Havre for orders.

Legal Reports.

Sale of Food and Drugs Acts.

OLIVE OIL.

At Consett on December 22, Kirk's Drug Stores Company, of Shakespeare Street, Consett, were summoned for selling as olive oil an article which Mr. W. F. K. Stock, county analyst, certified to be composed of iron 59.72 per cent., water 39.28 per cent., soap 1 per cent. Mr. Stock said the sample could be simply designated "greasy water." A fine of 1*l.* and 3*s.* 15*d.* 6*d.* costs was imposed.

MERCURY-OINTMENT.

At Longton on Wednesday, December 31, the Potteries Stipendiary Magistrate (Mr. Harold Wright) completed the hearing of summonses against a number of Potteries chemists for selling mercury-ointment deficient in mercury. Mr. Wright had previously (see *C. & D.*, December 27, 1902, page 1037) ruled against the contention of the defence that there is a commercial standard for the article, but reserved his decision on the question of a label covered with an outer wrapper being sufficient protection for the purchaser. It will be remembered that some of the defendants labelled the boxes with the correct name of the article which they gave, and wrapped the boxes in white demy, as is the custom of chemists. Mr. Knight, for the prosecution, now argued that the label, being obscured, was not noticed. Further, where a particular article is asked for under the British Pharmacopœia name the dealer is bound to sell that article, and the label would not protect him. Mr. Kirby (Messrs. Neve, Beck & Kirby), for the defence, argued that under Section 8 of the 1875 Act the purchaser has the opportunity of reading the label, and that it is common knowledge that chemists always wrap their articles up. The Stipendiary reserved his decision on this point until Friday, January 9, intimating that he is not finding fraud. He dismissed the case against Mr. L. W. Piggin, whose instruction to label the article "dilute mercury-ointment" in purchaser's hearing was not carried out by his assistant.

County Court Case.

NO CASE.

At Blackburn County Court on December 22, Judge Coventry heard a case in which Mr. Wm. Butterfield, chemist and druggist, 56 Bolton Road, Novia Scotia, Blackburn, sued Mr. P. F. Baynes for 21*l.*, six months' rent of a house, or, as an alternative, 7*l.*, double rent for a month, or double rent until such time as the key was given up. Defendant rented the house under a yearly lease. In response to notice to quit defendant gave up possession at the end of six months, but did not give up the key, and plaintiff contended that, as defendant had commenced another year's tenancy, he was entitled to six months' rent. The Judge told Mr. Butterfield he had not the shred of a case, and found for the defendant.

Bankruptcy Report.

Re HENRY WEMYSS FIELDEN ALLAN, 101 High Street, Kirkcaldy, Chemist and Druggist.—In the Kirkcaldy Bankruptcy Court on December 24, Sheriff Gillespie presiding, the adjourned cessio examination of this debtor was resumed. In answer to the trustee bankrupt stated that in the statement of affairs there was an appendix giving four outstanding debts, amounting to 623*l.* 1*s.* 6*d.* Appended to the statement there was a note to the effect that as these accounts were likely to be disputed, they were not meantime included in the foregoing list. That note would be put on by his law agent on his instruction. He had once applied for these debts about the end of August, prior to his private meeting of creditors. Speaking to several entries in which local doctors were said to be debtors to bankrupt in sums ranging from 18*s.* 11*d.* to 523*l.* 7*s.*, he stated that these parties had written saying they did not owe the accounts in their names. He raised an action in the Court against one of the doctors for 139*l.* for medicine supplied to clubs, but it was withdrawn on a compromise of 50*l.*, and all his claim against that doctor was wiped out by that payment. Another claim against three doctors as partners was

cleared up three years previously. He applied for the 500*l.* debt, but did not believe the debt was owing. He did not mention this as a possible claim to the private meeting of creditors in Edinburgh. He said he could not recover it, nor could any other one. His reason for making that statement was not exactly that he believed the debt was not owing, but when he raised this action this other doctor was under the belief that by compromising for 50*l.* he (bankrupt) did not receive enough, and handed him over his old discharge, which bankrupt had in his possession, and asked him to try and make up a statement, and he would put it before the present members of the firm and give it due consideration. He (bankrupt) then said it would be better to send it through a collector or solicitor. When he saw it was no good, and nothing more could be done with it, he told the doctor not to bother any more about it. He gave the doctor receipts equivalent to 200*l.* and received an insurance policy on his own life equal to that amount, and bankrupt gave him 45*l.* back. He did not consider that the debt said to be due by another doctor was owing. Some years ago he gave this doctor a note of hand that if he would send his private custom to the shop he would do his club-dispensing for nothing.

Deeds of Arrangement.

David, Iiwal, 37 Richard Street, Cilfynydd, Chemist and Druggist. Trustee, Harry Davies, Market Square, Pontypridd, Accountant, &c. Dated, December 22; filed, December 23. Liabilities unsecured, 119*l.* 12*s.* 8*d.*; estimated net assets, 55*l.* The following are scheduled as creditors:—

	£	s.	d.
Camwal (Limited), Bristol	12	0	0
Cloutman, Smith, & Hazard, Bristol ...	19	0	0
Evans Sons Lescher & Webb Limited, London	17	0	0
Scott, W., Cardiff	11	0	0

Topping, Edmund, trading as Topping Brothers, 34 Church Street, and residing at 11 East View, Preston, Chemist. Trustee, James Todd, 3 Winchley Square, Preston, Chartered Accountant. Dated, December 15; filed, December 20. Liabilities unsecured, 515*l.* 1*s.* 8*d.*; estimated net assets, 90*l.* 5*s.* 8*d.* Assignment upon trust, &c., with power to trustee to continue the business with a view to the gradual winding up of the same. The following are scheduled as creditors:—

	£	s.	d.
Ascroft, W. R. & W., Preston	25	0	0
Ayrton & Saunders, Liverpool	18	0	0
Blake & Mackenzie, Liverpool	11	0	0
Calderbank, W., Preston	98	0	0
Forrest, Livesey & Co., Preston	80	0	0
Hadfield, R. F., Preston	10	0	0
Holden, W., Preston	22	0	0
Oldfield, Pattinson & Co., Manchester ...	15	0	0
Thompson, J. (Limited), Liverpool	21	0	0
Topping, E., Bury	88	0	0
Wholesale druggists, Leeds	10	0	0

Watkinson, William Joseph, 53 Wallasey Road, Liscard, Chemist and Druggist. Trustee, James McLaren, 24 Brooks Alley, Hanover Street, Liverpool, Chartered Accountant. Dated, December 16; filed, December 23. Liabilities unsecured, 129*l.* 19*s.* 5*d.*; estimated net assets, 90*l.* The following are scheduled as creditors:—

	£	s.	d.
"Lancashire Daily Post," Preston	12	0	0
Wyleys (Limited), Coventry	12	0	0
Bankers' claims	43	0	0

Gazette.

Partnerships Dissolved.

McCaw, J. D., and Munro, J. D. R., under the style of Drs. Dysart, McCaw & Munro, East Finchley and Muswell Hill, N.W., medical practitioners.

Phillipps, W. A., and Avery, L., under the style of Phillipps & Avery, Mayfair, W., physicians, surgeons, &c.

Senior, A. W., and Parkinson, M., under the style of Senior and Parkinson, Levenshulme, Lancashire, surgeons.

Wale, G. H., and Lawson, H., under the style of Wade & Lawson, Chislehurst, Kent, surgeons and general medical practitioners.

New Companies & Company News.

PORTLAND MINERAL-WATER SUPPLY COMPANY (LIMITED).—Capital, 750*l.*, in 1*l.* shares. Objects: To acquire the business of mineral-water manufacturer carried on by F. H. Baker at East Street, Fortuneswell, Portland, and to carry on the business of mineral-water manufacturers in all its branches. No initial public issue. Table "A" mainly applies.

HART BROTHERS & CO. (LIMITED).—Capital 10,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on by Mary Walls and W. Smith, jun., as "Hart Brothers & Co.," at Hull, and to carry on the business of chemical-manure manufacturers, manufacturers of and dealers in linseed and other oil cake, all kinds of feeding-stuffs, &c. No initial public issue. The first directors are W. Smith, J. Bladwith, W. Coulman, J. Charlesworth, and A. D. C. Edwards. Registered office, 5 Bishop's Lane, Hull.

MARTIN & CO. (LONDON) (LIMITED).—Capital 500*l.*, in 1*l.* shares (20 founders'). Objects: To carry on the business of manufacturers of and dealers in cork, chemicals, mineral waters, beer, bottles, utensils, appliances, &c., and to take over the business carried on at 8 Newington Causeway, S.E., as "Martin & Co." No initial public issue. The first directors are C. E. Mellish, G. F. Watkins, and J. F. Martin. Qualification 20*l.* Registered office, 157 Fenchurch Street, E.C.

W. H. RICHARDSON & CO. (LIMITED).—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturing chemists, wholesale and retail druggists, patent-medicine vendors, grocers, drysalts, &c. The first subscribers are: W. H. Richardson, Park Terrace, Horsforth, chemical manufacturer; Mrs. C. A. Richardson, Park Terrace, Horsforth; J. W. Holt, 23 Park Row, Leeds, share-broker; Miss F. Richardson, 14 Spencer Place, Leeds; Mrs. F. Richardson, 13 FitzArthur Street, Leeds; A. Richardson, 39 Elford Grove, Roundhay Road, Leeds, traveller; and A. H. Richardson, 13 FitzArthur Street, Leeds, clerk. No initial public issue. Registered office, 103 Kirkstall Road, Leeds.

SCIENCE DEVELOPMENT COMPANY (LIMITED).—Capital 100*l.*, in 1*l.* shares. Objects: To carry on the business of chemists, druggists, drysalts, oil and colour men, dealers in proprietary articles, manufacturers of and dealers in photographic, surgical, and scientific apparatus and materials, &c. The first subscribers are: Miss M. Wheeler, 1 Belton Road, N.W.; Miss A. Cross, Great Totham by Witham, Essex; Miss L. Martin, 20 Steinenvorstaath, Basel, Switzerland; Mrs. C. Rocheron, The Homestead, Windsor; Miss G. Marks, 14 Dunster Gardens, N.W.; H. E. Griffith, Dunedin House, Basinghall Avenue, E.C.; and J. Payn, 31 Credon Road, S. Bermondsey. No initial public issue. Registered without articles of association.

T. BURNETT & CO. (LIMITED).—Capital 500*l.*, in 1*l.* shares. Objects: To acquire the business carried on by Tom Burnett at Lincoln, Gainsborough, Newark, and elsewhere, and to carry on the business of manufacturers of and wholesale and retail dealers in artificial teeth, nitrous-oxide gas, and every kind of dental preparation, dentists, dental surgeons, &c. The first subscribers are: Tom Burnett, 2 Monson Street, Lincoln, artificial-teeth manufacturer; Mrs. M. E. Burnett, 2 Monson Street, Lincoln; Sarah A. Robson, 16 Adelaide Terrace, New Benwell, Newcastle-on-Tyne, confectioner; Mrs. M. J. Robson, 16 Adelaide Terrace, New Benwell, Newcastle-on-Tyne, grocer, &c.; Florence E. Robson, 45 Adelaide Terrace, New Benwell, Newcastle-on-Tyne, milliner; Lilian M. Robson, 16 Adelaide Terrace, New Benwell, Newcastle-on-Tyne, "bakeress"; and Thomas Burnett, 29 Foster Street, Lincoln, miller. No initial public issue. Registered without articles of association. Registered office, 2 Monson Street, Lincoln.

SALE OF SHARES.—At Leeds on December 23 100 1*l.* fully-paid 6 per cent. preference shares in Taylor's Drug Company (Limited) realised 1*l.* 2*s.* each.

THE CINCHONA CULTIVATION COMPANY ("TJITHI-PASIR-NANGKA") held their annual meeting at Batavia on October 31, when a dividend of 19 per cent. was declared. Mr. L. L. A. Maurenbrecher was re-elected managing director, and Mr. J. A. Veenstra was elected to the directorate.

A CHEMIST in China informs us that he was asked some time ago if he could supply an artificial ear. It seems that a couple of Chinese lads aged about 16 to 18, were fighting on board a coasting steamer, and during the struggle one of them bit a large portion of the other's ear off. Its owner immediately put the piece in the ice-chest, thinking that the European doctor might be able to sew it on again, but that could not be done, hence the strange order to the chemist.

Trade-marks Applied For.

Objections to the registration of any of the undermentioned application should be lodged with O. N. DALTON, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," December 24, 1902.)

"OWLINE"; for a glue-powder or gum-powder. By O. Wendt, 10 New Union Street, Moorfields, E.C. 248,777.

"COXIN"; for chemicals. By Adolf Heseckel, Berlin, c/o Marks & Clerk, 18 Southampton Buildings, W.C. 249,757.

"ELGILDO" and "LEVADOR"; for goods in Class 1. By A. E. Guttman & Co., 8 Long Lane, Aldersgate Street, E.C. 250,150 and 250,151.

"OZOIDS" (no claim for "Ozo"); for insecticides. By Osman & Co., 132 Commercial Street, E. 250,123.

Device of an Esquimaux; for "ES-KE-MO OIL." By the Eskemo Chemical Company, Massachusetts, c/o Wheatley & Mackenzie, 40 Chancery Lane, W.C. 244,363.

"VAPO-CRESOLENE"; for medical compounds. By the Vapo-Cresolene Company, New York, c/o Haseltine, Lake & Co., 45 Southampton Buildings, W.C. 249,455.

"JOHN BOND'S OINTMENT"; for an ointment. By John Bond, 97 Allington Street, Liverpool. 249,639.

Facsimile signature for a label for a rheumatism-lotion. By Matilda Broughton, 50 Torrington Place, North Road, Plymouth. 249,708.

"ROPHIM"; for medicines. By Rigby Brothers, 101 Stafford Street, Walsall. 249,763.

Arrow passing through a ring and the word "Merito"; for photographic apparatus. By W. L. Parkinson, 3A Imperial Chambers, 62 Dale Street, Liverpool. 249,731.

"ZOMOTHERAPIE"; for goods in Class 42. By Armour & Co., 8 King Street, Smithfield, E.C. 249,407.

"FERRATOL" (no claim for "Ferrat"); for a fool. By W. K. Harrison, 25 Hyde Park Road, Leeds. 249,573.

"LACOVA"; for goods in Class 42. By Maltova (Limited), 11 New Station Street, Leeds. 249,777.

"TYMELLA" (no claim for "Tyme"); for a toilet-preparation. By J. P. Swaffin, Beach House, Brixham, chemist and druggist. 249,632.

"NAPHTHOLITE"; for goods in Class 48. By C. Thomas & Brothers (Limited), Bristol. 243,514.

"TUSCO"; for a dentifrice. By the Tusco Chemical Works, 29 New Oxford Street, W.C. 249,826.

"GLYQUA"; for perfumery, &c. By E. Cook & Co. (Limited), Bow, E. 250,039.

(From the "Trade-marks Journal," December 31, 1902.)

Device, and word "CHEMIFEX"; for chemicals and colours. By R. Herrmann, 59 Mark Lane, E.C. 249,555 and 249,557.

"SALAM"; for goods in Class 1. By Brunner, Mond & Co. (Limited), Winnington, Northwich. 250,063.

"PINKATOL" (no claim for "Pine"); for chemicals. By Meister, Lucius & Brüning, Höchst-a.-Main, c/o Abel & Imray, 105 Birkbeck Bank Chambers, W.C. 250,264.

"REUKIN"; for veterinary and sanitary preparations. By J. A. Gatehouse, 15 Methley Street, Kennington Park Road, S.E. 250,119.

"STRICNOFINE"; for a nerve and heart tonic. By G. S. V. Wills, 12 Ye Market, Selsdon Road, South Croydon. 241,765.

"MATCAN" brand, for ethyl chloride. By Matthaë & Co., 12 Cullum Street, E.C. 247,947.

"VI-MALT" (no claim for "Vi"); for goods in Class 3, except such as contain malt. By F. H. Faulding & Co., Adelaide, S.A., c/o G. T. Hyde, 1 Broad Street Buildings, E.C. 248,923.

"FEBRILOID" (no claim for "Febril"). By S. H. Ward, 43 Cranmer Street, Nottingham. 249,916.

Device of Indian maiden; for herbal preparations. By J. A. Morrison, 124 Renfield Street, Glasgow. 250,259.

"OPEDIA"; for a food-preservative. By W. Douglas & Sons (Limited), Baltic Wharf, Putney, S.W. 250,143.

Festivities.

A COLLEGE SMOKER.

A very successful smoking-concert, at which the medical, dental, and pharmaceutical students were present, was held in the College Refectory, Owens College, Manchester, on December 18. Dr. Collier presided, and was supported by members of the staffs of the Infirmary and of the Medical School, including Drs. Berry and Reynolds and Professor Wild. There was abundance of good talent, but the original songs and sketches of Mr. Irving, one of the medical students, who hit off in the happiest manner the various features of college life, were particularly enjoyed. Pharmacists will be interested to know that the subject for debate by the Medical Students' Debating Society on February 10, 1903, is "The Vexed Question of the Relation of Pharmacy to Medicine."

A LEITH SOCIAL.

The employes of Messrs. Raimes, Clark & Co., wholesale druggists, Edinburgh, held their annual social in Smith's Halls, Duke Street, Leith, on December 19. Mr. Richard Clark, D.L., J.P., supported by Mr. W. A. Davies, presided over an attendance of about a hundred. Mr. A. Cunningham officiated as croupier. After tea an excellent programme of vocal and instrumental music and recitations was carried through, amongst those contributing being Messrs. Cunningham, Donaldson, Fraser, J. P. Gibb, Smith, Thomson, Amos, Barnetson, Goodlet, and Hughson. Miss Davies and Miss Hill were efficient accompanists. Dr. Coull proposed a vote of thanks to the firm for the entertainment provided, and in the name of the employes congratulated Mr. Richard Clark on his re-election as Chairman of the Edinburgh Parish Council for the eighth year. Mr. W. J. B. Halley proposed thanks to those who had contributed to the harmony of the evening. An assembly followed, Messrs. J. P. Gibb and J. Hutton officiated as M.C.s, and dancing was kept up till an early hour next morning.

HOLIDAY FROLICS.

On breaking up for the Christmas holidays, the students of the Westminster College of Pharmacy presented Mr. G. S. V. Wills (the Principal) with a combination case of plate and cutlery, suitably inscribed, and a framed illuminated address. Mr. Shapley made the presentation on behalf of the students, whose enthusiasm showed how thoroughly they endorsed his remarks on Mr. Wills's popularity. An interesting fact in this connection is that on December 15 Mr. Wills delivered his twelve-thousandth lecture to pharmaceutical students. On December 18 over fifty members of the College journeyed to Kew, and, after inspecting the hot-houses, partook of an excellent tea provided for them by the Principal at the Rose and Crown Hotel. After tea the names of winners of medals and certificates during the recent College examinations were announced, and a smoking-concert followed, at which Mr. Broom's songs and accompaniments, and the pianoforte solos by Mr. Henry Wills, were the most popular items in a good programme.

Citron Oil.

By DR. SALVATORE GULLI.

IN the columns of this journal (*C. & D.*, vol. ix., page 19) I described a sample of citron oil, whose characters did not agree with those quoted by Mr. H. E. Burgess (*C. & D.*, vol. lix., page 978), because the two oils were pressed from a different variety of citron. It being of the utmost interest for the trade to know the characters of pure citron oil made from "cedrini," I obtained the fruit at the time of the harvest (second half of November) to make the oil in my own laboratory. The method of extraction, very carefully executed, was what is called hand-pressure with a thin sponge. A thousand citrons have thus given me 450 grams of oil of a yellow colour, and exceedingly fine odour and flavour. What is chiefly to be observed is that this oil,

when first made, contains a large amount of minute white crystals, and curdles into a crystalline mass, which makes the oil look as if turbid and silky. This oil examined by me gave the following constants:—

Specific gravity at 15° ...	0.851
Optical rotation at 15° ...	+ 83° 50'

A sample of citron oil pressed this year by Mr. Stavenhagen from "cedrini" has given the following constants:—

Specific gravity ...	0.850
Optical rotation ...	+ 79°

These values agree fairly well with those obtained by Mr. Burgess, so that they can be accepted as right for pure citron oil.

The production of citron oil is very limited in the district of Reggio Calabria, its yield being about 70 to 80 lbs. yearly. Owing to its high price, citron oil is subject to many adulterations. In fact, the most part of the so-called citron oil, which goes into trade at a low price, is composed of a mixture of hand-pressed oils of lemon and sweet orange in such a portion as not to visibly differ from the specific gravity and the optical rotation of the pure oil.

An oil which, on account of its fine perfume, may well substitute citron oil, is hand-pressed sweet-lemon oil, and is little known out of the district. Sweet lemons, as a rule, are mixed up with common ones; no oil therefore can be separately made. A sample of sweet-lemon oil made in my laboratory from sweet lemons by hand-pressure had the following constants:—

Specific gravity ...	0.855
Optical rotation ...	+ 64° 30'

Below I give the characters of two samples of citron oil composed of a mixture made by me with some fixed amount of pure hand-pressed oils of lemon, sweet lemon, and sweet orange. The pure oils used had the following characters:—

Hand-pressed Oils	Sp. Gr.	Opt. Rot.
1. Lemon oil ...	0.857	+ 61° 50'
2. Sweet-lemon oil ...	0.855	+ 64° 30'
3. Sweet-orange oil ...	0.853	+ 97° 52'

The resulting "citron oils" had the following characters:—

(1) Mixture A.

	Sp. Gr.	Opt. Rot.
50 per cent. lemon oil } 50 per cent. sweet-orange oil }	0.854	+ 79°

(2) Mixture B.

	Sp. Gr.	Opt. Rot.
50 per cent. sweet-lemon oil } 50 per cent. sweet-orange oil }	0.853	+ 80°

From the foregoing figures, it appears clear that the two mixtures have almost the same physical characters as pure citron oil, but they want that opaque and silky appearance which is a characteristic of pure citron oil.

In order to ascertain to what extent adulteration with any mixture of these oils may be carried on, I added to the pure citron oil an amount of the above-mentioned oils and of the two known mixtures, and I obtained "citron oils" showing the following characters:—

(No. 1) Citron Oil A.

	Sp. Gr.	Opt. Rot.
50 per cent. citron oil No. 1 } 50 per cent. lemon oil }	0.854	+ 71°

(No. 2) Citron Oil B.

	Sp. Gr.	Opt. Rot.
40 per cent. citron oil No. 1 } 60 per cent. sweet-lemon oil }	0.853	+ 72°

(No. 3) Citron Oil C.

	Sp. Gr.	Opt. Rot.
30 per cent. citron oil No. 1 } 70 per cent. mixture A }	0.852	+ 79° 50'

(No. 4) Citron Oil D.

	Sp. Gr.	Opt. Rot.
30 per cent. citron oil No. 1 } 70 per cent. mixture B }	0.852	+ 80°

One must, therefore, be very careful about such adulterants, which often do not positively alter the specific gravity and the optical rotation of pure citron oil, but take away its characteristic appearance.

Reggio Calabria, December 8, 1902.

Out in China.

Being extracts from a letter written by the manager of a pharmacy at a leading Treaty Port regarding his experiences, together with observations on the economic conditions prevailing in the Celestial Empire.

HOURS are long and work is hard. I start about 7.30 A.M.—the shop is opened at 7—and am at it until from 7 to 8, or even later, at night. Closing-time is nominally 7 P.M., but during the recent cholera epidemic it has been 8 or 8.30 P.M. There is a lot of work to be done here which a chemist's manager at home would be astonished at. I have to be at once manager, assistant, cashier, book-keeper, shipping-clerk, and Custom-house agent. My staff is entirely Chinese, and consists of a compradore, shroff, two clerks, five counter-assistants, and about a dozen coolies, to say nothing of boatmen and my own house servants. The job involves a knowledge of pretty well everything; the Customs tariff, fluctuations of exchange, and a few languages being mere appendages to a knowledge of British, American, and continental systems of pharmacy. If a prescription comes in in any civilised or uncivilised language, we have to make it up or send it away. We cannot take it with a knowing smile as though we understood all about it, inform the customer that it will take an hour or two to make up, and then send it to Schacht's or Jozeau's to be dispensed. Here I am alone in my glory, there being no other pharmacist either to fight or to take counsel with.

In a place like this one has to be almost a numismatist. The coins which pass here are legion, and those which do not pass are—well, more than legion. Among the current coins are, of course, the local ones, coined by the provincial Mint, Japanese silver yen, British trade dollars coined by the Indian Mints, Hong-Kong and Straits Settlement subsidiary coins, and even at intervals we get Korean coins, Philippine money, Spanish dollars, rupees, and American trade dollars coined many years ago for use in the territories taken from Mexico. The other day I had a Spanish dollar passed in bearing the date 1786. After this you will imagine that there are very few coins which do not circulate here. Among them, are, however, the coins of other Chinese Mints than the local one, which are rigorously discounted here. Fukien, Hankow, Peiang, or Feng Tien (Manchuria) dollars are not worth a hundred cents in this province.

The curse of the country is the want of a standard monetary system. The coined dollar is only a makeshift, and is not used by the Chinese in reckoning accounts. They prefer to reckon their money in taels, mace, candarins, and fan. The value of the tael differs in every province, and, in fact, in every city in every province. Striking an average, about 7 mace and 2 candarins (that is 0.72 of a tael) is equal to a dollar, or about \$1.38 (1 dollar 38c.) is equal to 1 tael. But in addition to this local tael there is in all the Treaty Ports another, the Haikwan or Customs tael. This is supposed to be uniform throughout, and is worth from \$1.50 to \$1.60, or, in other words, about 1 tael 1 mace and 5 or 6 candarins local value. But do not run away with the idea that the Haikwan tael is the standard currency of the Chinese Empire. I see it put down as such in every list of foreign moneys. To begin with, it is not money: it is a weight. A tael weighs about $1\frac{1}{3}$ oz., and the Haikwan tael is simply about $1\frac{1}{3}$ oz. of silver of a certain fineness. But as silver of this fineness never reaches the local market, the Haikwan tael is purely an imaginary value. It is not used by the Chinese at all: only by the Customs, and of late years by foreigners as holders of Chinese Government bonds, all of which are guaranteed by the Customs. Even the Imperial Post Office, which is a branch of the Imperial Maritime Customs, does not recognise the Haikwan tael, but only dollars and cents.

Over the greater part of China, even within a few miles of the various Imperial mints, the natives reckon the round coin with a square hole in the centre as "cash." These are strung upon strings, so many going to a string. But the Chinese do not call them "strings" of cash as we do, but "thousands." In some districts a string of cash, or a "thousand cash," is only 300 or 400; in others a "thousand cash" may be 1,200 or 1,300. Nominally a string of cash is worth about a dollar. The fluctuations of the dollars, much as they affect Europeans in business at the Treaty Ports, are

not felt by the Chinese, as the foreign trade of China is very small indeed—I believe about 1s. 5d. per head of the assumed population a year. So the fluctuations between the silver dollar and the gold currencies in Europe are only felt at the Treaty Ports by merchants and by foreigners employed out here who wish to remit money home. The recent sudden drop in the value of the dollar from 2s. to 1s. 8d. in a few months has upset all business in Hong-Kong and the Treaty Ports. But the Chinaman in the interior does not feel it. The Customs-duties, transit-passes, likin, and innumerable other squeezes are so exorbitant that by the time an article has got well into the interior a rise or fall of a few per cent. at the port of origin, or rather of entry, has ceased to be appreciable. Nor does a rise or fall in copper trouble him much. In the country districts the "cash" is almost entirely used, silver currency being unknown. On the other hand, in the cities, values are all in silver, "cash" being used by the very poorest classes only.

Further, the district dominated by the Imperial Maritime Customs is hardly looked upon as China proper by the Chinese; it is only the outer fringe of the Empire. To us Westerners who reach China by sea, and to whom the interior is an almost inaccessible region, reached only after many days, weeks, or months of travel, it is very difficult even to conceive of the Chinese idea. To the Chinaman the coast provinces are what the West of Ireland and the Highlands of Scotland were to our great-grandfathers. Over the vast mass of the interior of China one language is spoken; in the maritime provinces of the south-east quite a legion of languages are current, Ningpo, Foochow, Amoy, Swatow, Hakka, Hailan, and Cantonese being the chief. The so-called "Mandarin" language, on the contrary, is spoken in Manchuria in the north-east and Yunnan in the south-west, in distant Kangsu, and even in Tibet and Mongolia. It is estimated that 300,000,000 people speak Mandarin, or three-quarters of the entire population of China. And remember that in the Mandarin provinces the Customs are not a great power—in fact, they are hardly even known by name. In the whole of Manchuria there is only one Customs station—Niuchwang. In the vast northern area, comprising Chihli, Shansi, Shensi, Kangsu, Mongolia, and Outer Tibet, there is only one such station—Tientsin. For although the Peking office comes into close connection with the officials of the central Government, its very existence is almost unknown to the people generally, even in the metropolis. In the central area there is one office of importance—Hankow—with a number of minor ones, all on the Yangtze River.

The great weakness of China is want of unity and uniformity. A tael weighed by our compradore may not correspond to a tael weighed by the compradore of the Bank. The idea of China as a nation never appeals to a Chinaman. He is essentially provincial—or, rather, he is not even provincial, fights between villages being very common. A man from one village is usually a foreigner in the next; a man from Canton is a foreigner in Shanghai or Tientsin. The Christian converts habitually speak of the heathen Chinese as belonging to another nation. The Mohammedans, of whom there are estimated to be in the Chinese Empire from twenty to twenty-five millions, do exactly the same. I need hardly say that the heathen Chinese cordially reciprocate the feeling and look upon both the Moslems, who have been here for more than a thousand years, and the followers of the so-called Galilean serpent—who only arrived yesterday—as belonging to quite another country. The fact that they wear the same dress and speak the same dialect does not render the hatred less intense.

In political matters the same thing exists. Up to 1852 each Viceroy was a little king in his own right. The Viceroy at Canton concluded treaties with the foreigners without consulting Peking, and the foreign Consuls did not recognise the central Government in their negotiations. To this day the authority of the central Government is almost unknown. There are no Imperial troops, no Imperial taxes, no Imperial Legislature. The people know only the provincial Government, provincial troops, provincial taxes and squeezes, and recognise only the orders of the local Viceroy or Governor. Can you wonder that "where the carrion is, there the eagles are gathered together?" Whether the carrion will become "resurrected," as sundry other carrion is alleged to have been in days gone by, or whether the eagles will have a good foundation for a bad attack of indigestion, only time will show.

American Notes.

PERSONAL.—Mr. Lyman F. Kebler, who has been chief chemist to the Smith, Kline & French Company, of Philadelphia, for the past ten years, has been appointed chief of the National Drug Laboratory for the investigation of adulterated drugs, &c., which the last Session of Congress authorised to be established in Washington. Mr. Kebler commences his new duties on February 1.

SUING THE DRUGGIST.—Cincinnati druggists have watched with interest the outcome of an action recently tried in that county, which resulted in a verdict for the defendant. The case was that of Miss Ellen M. Galvin, who sued Mr. B. H. Overbeck, druggist, for \$10,000 damages, because, it is alleged, he sold poison to a woman, who administered it to the family of Dr. Ambrose, where Miss Galvin was employed as a nurse. Miss Galvin was made ill by eating of the food in which a servant had put arsenic, and she sued Overbeck, who sold the poison, on the ground that he was responsible for the injury done, and violated the law in selling the poison.

A POISONING-CASE APPEAL.—The Cincinnati Circuit Court on December 13 heard the argument on the appeal in an action for \$10,000 damages against Mr. John H. Linneman, druggist. The action was brought by Mr. Hiram M. Rulison, as administrator of John Weaver, on behalf of the widow, and is the outcome of a case of poisoning of tragic features, which occurred on May 16, 1889. James Weaver, 11 years old, it is alleged, purchased a box of rat-poison from a clerk in Mr. Linneman's drug-store. John Weaver, a brother of the boy, and their father were poisoned, the former dying. The boy was prosecuted and convicted, but on account of his youth was sent to the reformatory. Suit for \$10,000 was brought on behalf of the widow. The petition was demurred to, and the demurrer was sustained. The case was appealed against, and the argument on December 13 was on this appeal. The lower Court held that the poisoning was an intervening act of a responsible agent. The petition contended that an 11-year-old boy is not a responsible agent in the meaning of the law, and sought to hold the druggist responsible. The Court reserved decision.

CHEAPER ALCOHOL IN U.S.A.—In addition to the Joy Bill there are several other measures now before the Ways and Means Committee, proposing changes in the internal revenue laws that will favourably affect those engaged in the distilling industry. The Commissioner of Internal Revenue is opposed to such a big reduction as the Joy Bill contemplates, saying it would make too big a cut in the receipts, and it is not believed a majority of the Ways and Means Committee favor a reduction of 40 cents a gallon. The distillers, most of whom are engaged in the production of whisky, are considering a compromise, and will doubtless ask that the tax be made 90 cents a gallon. Those behind the proposed legislation are insistent that the new rate, if adopted, shall embrace all the stock in the bonded warehouses which amounts to 167,000,000 gallons of distilled spirits. Even if the compromise of 90 cents is accepted, it will mean a saving of \$33,000,000 on the tax which the producers counted on paying at the time of producing the spirits. The distillers evidently anticipate some reduction in the tax on spirits, for the quantity now in bond is more than has been held at any period in the past six years.

ANTI-TYPHOID SERUM.—The Paris *Temps* has published a full report of the paper on the serum cure of typhoid-fever read last week at the International Medical Congress at Cairo by Dr. Chantemesse, professor of pathology at the Paris Faculty of Medicine. The document is of considerable length, and goes very fully into the subject. One of the doctors at the Pasteur Institute has given a Press correspondent various details regarding the Professor's discovery. Amongst other things, he said:—

One cannot extract the serum from the blood of the horses used till eighteen months after the inoculation. This means that the use of the serum cannot be generalised for some time to come. Professor Chantemesse had no other resources but his own for the prosecution of his researches, and of the six horses he inoculated three have died. A subvention which has been promised by the Minister of the Interior will enable him to extend the scope of his experiments. In any case it is necessary to wait.

Medical Gleanings.

BROMIDE-RASH.

PROFESSOR ANTONY ROCHE communicates to the *Lancet* a simple remedy for the acne-like eruptions which are often produced on the face of patients who take bromides. The patients are directed to wash the face night and morning in buttermilk in place of water, a simple application which the professor says has effected good in nearly all the cases in which it has been tried.

ZINC GELATIN.

DR. ALFRED EDDOWES in the *Medical Times* gives the following as an easy method of making medicated gelatin dressings. Zinc, gelatin, glycerin, and water, in the proportion of one, two, three, and four. Four ounces of gelatin is placed to soak in 6 oz. of water for two hours or more. Two ounces of zinc oxide is then mixed in a mortar with the glycerin (6 oz.) and 2 oz. of water; and this latter mixture is then added to and stirred up with the already dissolved gelatin, which should be warm at the time, the vessel containing it standing in a larger vessel with some hot water in it. The future management is just that of a glue-pot, water being added whenever necessary to make the compound thin enough.

DR. HENRY HARPER, of Nottingham, recorded at the annual meeting of the British Medical Association further observations on the use of pure

UREA IN THE TREATMENT OF TUBERCULOSIS.

He gave particulars of forty cases, and the following concise observations on the mode of administration:—

Begin with 20-gr. doses, and gradually increase up to 60, 80, or 100 gr., three times daily between meals, dissolved in water flavoured with peppermint. In 1 to 2 per cent. of cases symptoms of gastritis may show, then cease the urea for a few days and begin again. Only pure urea can be prescribed; commercial urea, such as used for dyeing, produces vomiting and diarrhoea.

Three per cent. of pure urea added to a virulent culture of tubercle bacillus in the incubator not only inhibits growth, but kills the bacillus. In cases of mixed infection he has given along with pure urea, calcium sulphide in 1½-gr. and 2 gr. pills, four or five pills daily. As is well known, this drug is a valuable remedy in carbuncle, where the streptococcus is the pathologic germ. In mixed pulmonary tuberculosis all are agreed that the streptococcus plays an important part. With this treatment Dr. Harper has obtained surprising results.

THE ACONITINES.

ANOTHER paper of special interest was by Professor J. Theodore Cash on the "Pharmacological Action and Therapeutical Employment of Pseudoaconitine and Japaconitine," wherein he showed that if the dose of aconitine be represented by the unit, that of pseudoaconitine should be 0.4 to 0.45 of that amount, whilst that of japaconitine should be from 0.8 to 0.9. Used inwardly, pseudoaconitine and japaconitine, given in the proportion indicated, may be employed for moderating circulatory activity in some febrile states, for the relief of pain, and for other purposes which have been answered by the exhibition of aconitine. It may be added that solutions of the alkaloids would be very preferable for employment to preparations of the plants which yield them, for in the latter the main alkaloids not only vary in proportion, but are often associated with other principles which have a somewhat neutralising or qualifying effect. For local relief of pain the three alkaloids have been found to act well in similar proportions (2 per cent. to a basis of oleic acid and lard in B.P. proportions being employed).

UNNA'S way of treating a corn is as follows: A ring of glycerin jelly is painted round the circumference of the corn, to form a raised rampart. A piece of salicylic plaster mull is then cut to the size and shape of the central depression, and applied to the surface of the corn. This is then covered with a layer of glycerin jelly, and before it sets a pad of cotton-wool is applied to the surface. This process is repeated as often as is necessary, until the horny layer separates and is cast off.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Discretion in Dispensing.

SIR,—Mr. Donald McEwan's paper on this subject is most interesting, and he and those who contributed to the discussion deserve our sincere thanks. I think Mr. McEwan's position somewhat contradictory. Starting with the statement that a prescription should be dispensed literally as written, and while deprecating the addition of any suspending agent to bism. carb. mixtures, he says, "The opposite course should be adopted with bism. subnit.," without, I presume, the doctor's orders. He also advocates as "the only safe plan" using liq. arsen. hyd. with strychnine solution, but does not say if we are to get permission or not. Dr. Sillar seems to me to lay down the proper rule when he says the dispenser should carry out the prescriber's intention. This is generally easy to divine, and yet leaves the dispenser scope for his ability to do so with neatness and accuracy. As regards not using suspending agents, what would he do with this prescription which I had yesterday?—

Salcl. ...	...	...	...	gr. 90
Spt. chlorof. ...	...	...	...	℥ 80
Aq. ad ...	...	...	...	℥ viij.

Ft. mist.

I agree with him as to bism. carb., but it is a matter of opinion. Squire says p. trag. co. ought to be used. His suggestion that the Pharmaceutical Society should issue a sort of authoritative "Art of Dispensing" will not commend itself to the Council of that body, which has sufficient on hand without raising a hornets' nest such as that. As to there only being 1 gr. difference in dose on shaking a bism. subnit. mixture, if Mr. McEwan (a professional) gets that, what would, say, a lady get? Has he ever seen anyone not in the profession shake a bottle?

Many of us must have dispensed liq. arsen. (Fowler's) and liq. strychn. hyd. together hundreds of times, and I fail to see why Mr. McEwan should not carry out his idea and dispense it as written. It is all a matter of solubility, and he does not instance the strength. Most medical men seem to prefer liq. Fowleri, and they know best. The using of the acid solution seems strangely at variance with the tenor of his paper.

Boric acid (1 in 20) is often prescribed. Many medical men seem to think of it as they do of carbolic acid, as a 1-in-20 solution; but many oculists wish their patients to use the lotion warm, and mixed with as much warm water as will make it so. If that is the case the strength would be reduced, and it might be the object of ordering more than will dissolve to make it be taken up by the hot water.

As regards bismuth and soda mixtures I do not see that it is any part of the doctor's intention to cause an explosion, and it is therefore our duty to obviate such a thing as much as possible. "Explanations" to customers are never well received. I have for some time kept bism. subnit. for such mixtures specially, by allowing it to stand some time in weak sod. bic. solution, washing and drying. The usual simple test will show the presence of nitrate, so that it is not all converted into carbonate, and certainly not as much as it would be by heating the mixture when wanted, when not only must it be nearly all, or entirely, converted into carbonate, but most of the sod. bicarb. must become carbonate too. The above plan entirely prevents any risk of explosion.

I was much surprised to read that candidates are required to make percentage solutions—1 gr. in 100 minims. I am glad to hear it, though how that can be reconciled with the official liquors it is hard to say. On no subject

have we been so led astray by scientific faddists as on this one. We are told that, strictly speaking, a percentage solution is 1 gr. of active ingredient dissolved in 99 gr. by weight of solvent, and this quite regardless of what kind of solvent, and its sp. gr. As this will not do, we have it so that 1 gr. is dissolved and made up to 100 gr. with the solvent. A true percentage solution—that is, one which can be used by common-sense men in an ordinary way, and mean what it says, 1 in 100—is made, as Mr. Rowland says, by dissolving 1 gr. in so much of the solvent as will make 100 minims by measure, whatever the solvent may be. When the metric system is adopted, we shall have this. At present we have not, because, although we can get it by making according to the metric system, the prescriber prescribes according to the other, and therefore uses the 1 in 110.

Yours faithfully,

76 Kensington Park Road, W.

HERBERT ROBERTS.

Army Medicines.

SIR,—An editorial article in THE CHEMIST AND DRUGGIST of August 30, 1902, states that "It shows the confidence of the War Office in their medicine-contractors that only fifty-five samples were submitted for analysis." (This, we may note, includes surgical dressings which we did not supply.) The period under consideration was the year ended March 31, 1902. For the first half of that year we were contractors for medicines, for the remainder, Messrs. Burgoyne, Burbidges & Co. We find on reference to our books that during the last six months of our supplying the Army precisely five samples were taken for analysis, leaving fifty (out of fifty-five) for surgical dressings and the medicines of our successors. Our attention has been drawn to a circular issued by Messrs. Burgoyne, Burbidges & Co., which, after stating that they are the contractors for medicines, goes on to quote the above editorial statement, the natural inference being that Messrs. Burgoyne, Burbidges & Co. are the contractors referred to in that statement. We had not previously thought it necessary to draw attention to your comment on the confidence which the War Office had in their contractors, but in view of the circular which Messrs. Burgoyne, Burbidges & Co. have thought fit to issue, we think it right to mention the foregoing facts, which speak for themselves.

Yours faithfully,

Southwark, S.E., December 30.

DAVY, HILL & CO.

P.A.T.A. Additions.

SIR,—Having great faith in the P.A.T.A., and feeling sure every addition made must be satisfactory to both parties, may I, as a humble member, appeal to those who share my appreciation of the latest additions, to give the Keating's and Wright's coal-tar preparations a little push this New Year, so as to give those proprietors some encouragement in their new venture? I feel sure every member of the P.A.T.A. will hand over these preparations without any attempt to sell a similar article of his own, but the record of an increased sale will encourage others to follow a good example, and join a movement which I am sure is to the interests of proprietors.

Yours faithfully,

Dalston, December 30.

J. C. PENTNEY.

The Latin Language.

SIR,—Even to my imperfectly educated understanding "Xrayser's" remarks on this subject came with something of a shock. Surely he misses entirely (I said) the question at issue! So I read his paragraphs to a young relative who has just returned from a year's course of classical study in a German University following upon four at Oxford. "What," I asked, "do you think of this?" He smiled. Not to put too fine a point upon it, he smiled somewhat broadly. "Well," he said, after a while, "your friend is not perhaps very far wrong as regards the value of such Latin as is usually acquired by—by—" "by pharmacists like me?" I queried, and my young relative let the interjection pass (and yet, sir, I have coached three apprentices through the Preliminary!)—"but (he went on) he fails to see that 'as an item of general education' Latin does something for us which mathematics and the physical sciences cannot do. More than any study, except that of Greek, it teaches us style, and the effect of style upon the mind and character is more important than that of the acquisition of facts or the habit

of observation which the study of science promotes. Latin and Greek not only promote exactness of thought, balance, and urbanity (as the Latins understood the term), but they also enlarge the mind by increasing its powers of apprehension and expression. The mere acquisition of facts is apt rather to distend it." "But," I said here, "you must not forget that 'Xrayser' himself would have us study the classical literatures." "If required," he corrected me, "and there is much virtue in an 'if.' But he appears to have forgotten in his eagerness for science what literature is. Let us submit to him two passages, one of verse and one of prose, each a literary gem, from Latin authors, and ask him to tell us what difference, if any, he finds between their original and their translated form. Virgil shall come first with his verse—

*Sternitur infelix alieno vulnere cœlumque
Aspicit, et dulces moriens reminiscitur Argos*

which Lee and Lonsdale (Globe edition) render thus—

The unhappy man is laid low by a weapon meant for another, and looks up to heaven, and as he dies remembers his beloved Argos.

Dryden, somewhat more happily, thus—

*Now falling by another's wound, his eyes
He casts to Heaven, on Argos thinks, and dies.*

"Surely there is in Virgil a magic and a pathos to which neither of his translators attains.

"The prose piece shall be from Livy—

*Hoc illud est præpue in cognitione rerum salubre ac frugiferum,
omnis te exempli documenta in illustri posita monumento intueri;
inde tibi tuæque rei publicæ, quod imitere, capias, inde, foedum
inceptu, fœdum exitu, quod vites;*

Englished by Fox as follows—

In the study of history nothing can be more useful or suggestive than to keep before our eyes, enshrined in a distinguished record, patterns of every type to supply public and private life with models to imitate, or examples to avoid in whatever was base from beginning to end.

Here, again, we have in the Latin a lucidity, a cogency, a rhythmical balance and an ordered force, which it would be impossible to comprise within the same number of words in English."

Thus my young friend, speaking perhaps with the over-confidence of youth, and with many more words to the same end. I have not tried to report him literally, and it would be presumptuous in one so little versed in classical lore as I to say how far I agree with him. But I think there is a good deal in what he says.

I am, &c.,

C. C. B. (163/1.)

The Tunstall Prosecutions.

SIR,—There are one or two points anent above to which I should like to refer. I would first ask Mr. Knight what he would have done under the following circumstances. A poor, ignorant old woman applied to me for "a penn'orth o' nitric acid." Upon being questioned, she said it had been recommended to her to drop into her eyes, because they were weak and watery. Since Mr. Knight's logic is "it is not for the chemist to presume something else was wanted," he would have sold the old lady the nitric acid. I fancy, if Mr. Knight or I had complied with the request, we should have figured before our "betters" to give an account of the use of our reasoning faculties. Has it come to this, because the General Council of Medical Education and Registration of the United Kingdom has always desired, in the British Pharmacopœia, "to afford to the members of the medical profession and those engaged in the preparation of medicines throughout the British Empire one uniform standard and guide, whereby the nature and composition of substances to be used in medicine may be ascertained and determined" (see Preface to B.P.). Is the past history of domestic drugology and practice to be thus swept into oblivion, and is there in future to be no commercial element other than that indicated by the B.P., and are chemists to be mere automata? What would Mr. Knight sell for "sweet oil"?—it might mean almond, olive, colza, or mineral lubricating oil, according to the use intended—but "chemists are not presumed to know" and must say it is not in the Pharmacopœia.

I should like to ask upon what ground of equity could

Mr. E. W. T. Jones expect soft soap to be a different article at the chemist's to that at the grocer's or oilman's? Would he expect arrowroot, rice, tea, and a thousand-and-one articles kept and sold by both grocers and chemists to be alike? If not—why not? It is one thing to assert, but quite another to give a logical reason why—and it is the latter that the chemist has a right to have definite declaration upon. I hope the Chemists' Associations throughout the country will take this matter up and demand that justice shall be dealt equitably 'twixt all classes of traders. There is all the difference in the wide world between fraudulent adulteration (for the sake of extra gain) and the national custom of long ages, and I contend, the attitude of Mr. Knight and the assistant-inspector, in giving instructions to purchaser to say "he did not know," is both reprehensible and un-English, savouring more of persecution than prosecution.

Yours truly,

WEST RIDING. (168/37.)

Mist. Chlorin. et Quinæ.

SIR,—In your issue of December 2 I read with great interest Mr. Duncan's answers to the numerous queries handed to him by the members of the Edinburgh Chemists' Assistants' and Apprentices' Association. The only answer I am inclined to adversely criticise is that given to Query 16, where Mr. Duncan is asked if he would dispense a mixture containing chlorate of potash, hydrochloric acid, and quinine. He says he would, his reason being that "little or no chlorine would be liberated before the mixture was used up; but that the combination was not to be commended." Now, what is plainly meant is a chlorine mixture, and the dispenser should see that he liberates as much of the chlorine as possible before giving it out. By dispensing it as Mr. Duncan suggests, the results expected by the prescriber would scarcely be attained. Chlorine in medical opinion is one of the most commendable of all the intestinal antiseptic agents used in typhoid fever. Watson and Murchison many years ago looked upon it as such, and Dr. Burney Yeo to-day endorses Murchison's opinion in "having repeatedly found it to have a beneficial influence upon the abdominal symptoms." Having occasionally to dispense this mixture, the method I adopt is as follows:—Place the powdered chlorate of potash in the bottle and pour over it the strong hydrochloric acid, chlorine gas is at once liberated. Cork the bottle and allow it to stand until it has become filled with the greenish-yellow gas. Then pour on the water little by little, closing the bottle and well shaking after each addition until the bottle is filled. The solution now contains free chlorine together with some undecomposed chlorate of potash and hydrochloric acid and the by-products mentioned above. Finally, add the quinine. The free hydrochloric acid which still remains in the mixture is of undoubted value. It is an antiseptic, and an acid condition of the intestinal contents is hostile to bacterial life. The quinine acts as a general antiseptic, and has indeed been found to check the cultures of the typhoid bacillus; therefore, considering these facts, the mixture seems commendable enough after all.

WM. W. HUNTER.

Fraserburgh, December 25.

[On this subject see "The Art of Dispensing," Ed. 6, p. 254.—EDITOR.]

Glasgow and the Proprietors.

SIR,—I subjoin a copy of a circular-letter which has just been sent by the committee of the Glasgow and West of Scotland Chemists' Trade Association to the manufacturers who were invited by them to attend the recent Convention which was held in London under the auspices of the P.A.T.A.

Yours faithfully,

Glasgow, December 29.

T. DUNLOP, Secretary.

GLASGOW AND WEST OF SCOTLAND CHEMISTS' TRADE ASSOCIATION.

Albert Cross, Pollokshields, Glasgow.

December 27, 1902.

The committee of the above Association are of the opinion that many of the manufacturers of proprietary articles are favourable to the resolutions agreed upon at the P.A.T.A. Convention held in Inns of Court Hotel, London, on November 26, 1902.

As the committee desire to have your co-operation and assistance in securing remunerative profits to the distributors of proprietary articles they, therefore, again respectfully ask you to

consider the advisability of placing your preparations on the P.A.T.A. list.

The Glasgow Chemists' Trade Association represents 96 per cent. of the vendors of patent and proprietary medicines in Scotland, and they think that in all trade matters their Association is thoroughly representative and unanimous in its demands.

The committee will be glad to hear from you at an early date as to what action you contemplate taking in this matter, and if you have any suggestions to offer they will be carefully considered.

Whilst expressing their appreciation of the interest already taken in this forward movement by the several important firms who were represented at the recent Convention, the committee believe that immediate co-operation on the part of manufacturers will produce satisfactory results to every proprietor who assists the movement.

Yours faithfully,

T. DUNLOP, Secretary.

Legal Queries.

Consult "The Chemists' and Druggists' Diary," 1903, before formulating Queries.

161/7. *E. P. B.*—Your pearl-ointment labels render the preparation liable to stamp-duty because one says, "is singularly efficacious in all the 'ills that flesh is heir to';" and the other, "is used in all the 'ills that flesh is heir to.'"

248/32. *Frank.*—The matter is one on which you should consult a local solicitor, especially as you seem to be in a fighting spirit. You do not tell us whether you paid for goodwill or not, and it is only modification of that which you can possibly get, for it was your duty to make general inquiries respecting the future prospects. There was no obligation on the part of the seller of the business to disclose what you complain about.

161/37. *W. G.*—A buys B's business and carried it on under B's name for some time. A shuts up B's business, C re-opens same: is C justified in trading as "C, late B?" [No.]

164/64. *Linox.*—We do not see how you can possibly get out of payment for the floor-covering. We have frequently seen it go as you describe, especially the best qualities. It becomes more uniform in colour by wear and washing. Have it rubbed occasionally with furniture-polish, when dry after washing.

151/33. *A. S.*—Mr. James Robinson, 54 Barkerend Road, Bradford, informs us that he has used the word "Kurem" for ointment during the past eighteen years, so that he is ahead of you by eleven years.

160/28. *A. O.*—The building may be controlled by the powers of some Act or regulations of local incidence. You had better inquire respecting this, and furnish us with the requisite particulars.

259/36. *Latex.*—It is legal for an unqualified assistant to sell proprietary medicines containing scheduled poisons, if a qualified person is present to supervise the sale. For poisons in the first part of the schedule it is certainly necessary that the qualified person should see and be seen by the purchaser, as the onus of entering in the poisons-book rests upon the qualified person, who, according to Section 17, must "make, or cause to be made, an entry," &c. As to poisons in the second part, supervision is a question of evidence. See reply to "R. H.," and the quotation from Mr. Justice Hawkins's judgment in *Pharmaceutical Society v. Wheeldon*. We know of several cases in which the presence of a qualified man in a shop, but unseen by the purchaser, has been held to be insufficient supervision, and we know of no case in which the contrary has been proved.

168/9. *Dieu et mon Droit.*—Your position in regard to the use of the royal arms differs materially from the customary use in pharmacy, first, in regard to the fact that your use is a continuance of a practice by your predecessor, who was a royal tradesman, and, second, the arms are conspicuously placed on the shop-front over the shop-door, a position in which royal-warrant holders and few others place the arms. These will be adverse facts rather difficult to get over in the event of the case coming into court. If a summons should be served upon you, you should remove the arms without delay.

262/34. *Enotsliah.*—The circular is not an infringement of the Dentists Act, Section 3, as far as we can judge.

168/26. *R. H.* puts this problem: A person, A, not registered, takes a retail order for laudanum from a private family in the country, along with other goods. A delivers the order to his employer, a registered chemist, for execution. Is it legal for A to deliver it, and receive payment either on delivery or on receiving the order, so that he would be acting in the capacity of a messenger? [Rarely in such cases as that which "R. H." describes can the intention of the law be fulfilled. Strictly speaking A commits an illegal act. It was held in the *Pharmaceutical Society v. Wheeldon* that the person who hands over a poison must be registered or supervised by a registered person, "so that every individual sale shall be so guarded by the precautions prescribed by the Act that the safety of every individual member of the public may be provided for."]

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

157/20. *T. R. W.*—Thanks, but no room to spare at present.

161/70. *A. P. S.*—(1) The article on "Stocktaking" appeared in an issue of the *C. & D.*, which is out of print. (2) Entire drugs are not liable to medicine-stamp duty.

250/12. *Syntax.*—Wholesale houses request at least 10 per cent. profit for handling proprietary articles.

146/29. *W. A. T.*—The Institute of Scotland's examination has not yet been removed from the Pharmaceutical Society's list, and is not likely to be, as the Board of Examiners for Scotland has to have its say in the matter. Any certificate obtained while the examination is recognised will be accepted afterwards, provided all the subjects are covered. This has been the practice up to the present.

141/39. *J. W. B.*—Eau-de-Cologne (Paris Exhibition prize-formula):—

Ol. bergamot....	...	...	...	3ij.
Ol. limonis .....	...	...	...	3j.
Ol. neroli .....	...	...	...	gtt. xx.
Ol. origani .....	...	...	...	gtt. vj.
Ol. rosmarini .....	...	...	...	gtt. xx.
Spt. rectificat. ....	...	...	...	3xx.
Aq. flor. aurant. ....	...	...	...	3j.

Mix in the above order.

It is the better for being kept a few months before sale.

166/37. *X. Y. Z.*—Dandelion-coffee Essence.—Replace part of the coffee in the formula for liquid coffee which we published in the *C. & D.*, January 4, 1902, page 29, by roasted dandelion-root, the quantity depending on the kind of product you are aiming at making.

166/10. *Lens.*—The Leather Stain certainly has a peculiar smell, but cannot be called rancid; it suggests ammonia. Was the stain originally odourless?

167/73. *Victorian.*—(1) Churchill's syrups are well known on this side of the globe. Refer to the Buyers' Guide in the current *DIARY*. (2) Nit-lotion.—The Edinburgh Infirmary recipe, given in "Pharmaceutical Formulas," page 91, or in the *C. & D.*, March 23, 1901, page 494, makes an effective preparation.

258/4. *W. I.*—Charging a Dry-cell.—See *C. & D.* December 21, 1901, page 1010.

165/68.—*Zew.*—Lyell's "Elements of Geology" and "Antiquity of Man" are two of the best books on geological evolution.

169/10. *G. W. D.*—Optician's Books.—The treatise on the "Spectacle Trade," published in *THE CHEMISTS' AND DRUGGISTS' DIARY* for 1900, was written specially for chemists' use. Taylor and Baxter's "Key to Sight-testing," which was reviewed in the *C. & D.*, July 26, 1902, page 140, is also good, one of the authors being a chemist.

169/13. *Rusticum*.—The crystals deposited from the artificial essence of vanilla in cold weather are vanillin. The menstruum you use is too weak in spirit.

164/50. *Tincture*.—There is no such thing as "galban chloride." Are the words distinctly written? The context may show what is intended, but it is useless for us to suggest anything without seeing the prescription.

152/44. *A. C. G.*—Guaiacol in Pills should be treated in the same way as you would creosote, powdered curd soap being the best absorbent. Roe's gelatin excipient, of which particulars were given in the *C. & D.* for December 23, 1901, page 1044, yields excellent results.

168/5. *E. E. (München)*.—We must refer you to "Pharmaceutical Formulas" for details of the manufacture of ginger-beer, as to describe the process here would take up too much space.

159/10. *Vet.*—Ginger-brandy:—

Jamaica ginger, bruised ½ lb.
Strong brandy 1 gal.

Macerate fourteen days, shaking repeatedly, and strain. Boil the residue gently for twenty minutes in a gallon of water, strain; add—

Sugar 10 lbs.

Dissolve, and when cold add the brandy and finings to clear.

161/22. *Tropics*.—The best excipient to use for a tooth-paste for hot countries is glycerin. The basis of the paste may be chalk or a mixture of kieselguhr and kaolin.

158/32. *A. M.*—We cannot give the exact amount of boric acid and resins in the mantle spray.

154/8. *C. H. F. W.*—We have no more exact knowledge of the composition of Moonseed bitters than that it consists of vegetable bitters. You could prescribe it in cases needing a bitter.

153/48. *A. B.*—If your customer uses a weak solution of formaldehyde (formalin 3ij., water 3vj.) as a hair-wash the hypersecretion of oil and falling-off of the hair will be checked.

141/15. *X. Z.*—Specialists on Goitre.—Refer to DIARY.

157/23. *Descaria* (Madrid).—Allcock's porous plasters are proprietary articles. We do not know the formula.

156/70. *G. H. G.*—Red Rubber-stamp Ink.—The formula for this is—

Diamond fuchsin I. 3ij.
Distilled water 3x.
Acetic acid 3ij.
Rectified spirit 3iss.
Glycerin to 3x.

Make a solution by rubbing in a mortar.

For a green ink use aniline-green D. 3iv. in place of the fuchsin.

141/31. *Booco*.—(1) Appetising-powder for Horses:—

Cream of tartar 3j.
Black antimony 3vj.
Common salt 3iv.
Powdered gentian 3iv.
Powdered juniper-berries 3iv.
Powdered caraway 3j.
Powdered mustard-seed 3j.
Oatmeal 3ij.

Mix.

A tablespoonful with the food twice daily.

(2) Condition-powder for Horses:—

Powdered liquorice 3xij.
Saltpetre 3viij.
Flowers of sulphur lb. j.
Black antimony 3v.
Powdered anise 3ij.
Powdered nux vomica 3ij.

Mix.

A tablespoonful with the food twice daily.

160/47. *F. K.*—Clinical-thermometer Ink.—See *C. & D.*, December 20, page 1030.

158/7. *Quero*.—The syllabus of the examinations of the Spectaclemakers' Company gives a list of books to use in preparing for the examination. The syllabus can be had from Colonel T. Davies Sewell, 11 Temple House, E.C.

157/51. *Inquirer*.—Water-glass is, an Australian correspondent informed us some time ago, an excellent adhesive to use for labels on tin boxes in dry climates.

158/41. *Pyro*.—Pyro-ammonia developer is not suitable for a chemist's speciality. The developer stains too much, and deteriorates on keeping. **Pyro-soda Developer**, from such a formula as the following, may be safely recommended:—

(A)				
Pyrogallol	...	...	...	160 gr.
Nitric acid	...	...	...	8 drops
Water to	...	...	...	20 oz.
Dissolve.				
(B)				
Sodium carbonate	...	...	...	4 oz.
Sodium sulphate	...	...	...	4 oz.
Sodium bromide	...	...	...	40 gr.
Water to	...	...	...	20 oz.

Dissolve.

To develop a quarter-plate mix 2 dr. of each solution, and dilute with an equal volume of water.

170/3. *J. P. P.*—You must give your name and address when making inquiries. The omission of the tr. aconiti from the formula for Influenza-mixture you wrote about some time ago will be all that is necessary to yield a non-poisonous preparation.

167/34. *Cosmé* asks us to help him in regard to an epidemic amongst the pigs in Paraguay. The epidemic resembles pleurisy, and several deaths have resulted. The symptoms are as follows: The pig becomes dull and loses appetite, has heavy appearance about eyes as though spectaclled, seeks solitude, and movement seems painful. The animal also has a short barking cough, and a reddish-purple rash is noticeable on the breast, ears, shoulders, and hind legs. On the under parts the rash is a dark purple; the excrement is offensive and hard. The pig refuses solid food, while some have ague—like fits, which generally precede death. [The disease "Cosmé" refers to is a specific infectious disease due to a micro-organism, as is the case with swine-fever at home, but in Paraguay the pleura, heart-coverings, and subsequently the skin, are affected. In those cases where the eruption is early and covers a large surface, recovery is more probable, as it would seem that the skin and kidneys make strenuous efforts to carry off the poison generated by the organism. It is this microbic material circulating in the blood which in some cases poisons the nerve-centres and induces paralysis. Those familiar with the different phases of distemper in dogs will recognise a similarity in this malady. The identification of one or more cocci as being capable of reproducing the disease does not at present give any information as to treatment. We can only recommend early segregation, thorough disinfection, and, on the first symptom, the administration of a bold aperient-dose of castor oil. Repeated very small doses of mag. sulph.—scruples—with from 2 to 5 gr. of potassium nitrate or sodium salicylate, have been attended with some success, and are worth a trial.]

Information Wanted.

166/63. Who makes "Baggaley's Premier" cork socks?

166/17. Who is the maker of Croft's tincture for snake-bites?

167/13. Where can Chamberlain's cough-mixture be obtained?

167/20. Where can Lingner's glyco-formal apparatus be obtained?

167/42. Present address of Theodore Skull, surgical-instrument maker, formerly of 91 Shaftesbury Avenue, W.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C.: January 1.

STOCKTAKING and clearing-up operations have naturally confined business to narrow limits this week. There is, however, a very hopeful feeling that 1903 will prove a more prosperous year than its predecessor, and this feeling is probably engendered by the fact that December business was fairly good, the year closing with many articles on the upward trend.

The first drug-auctions of the year will be held next week, and, as is usual, the supplies are likely to be heavy, judging from the quantities already advertised. In drugs, cascara sagrada has risen rapidly, owing to a brisk demand and scarcity both here and in California. A fair quantity of cannabis indica has been taken up for the United States, and holders have advanced prices. Essential oils are quiet, peppermint being very firm, with more activity in the United States; English oil of cubebs is dearer. Crude camphor and carbonate of lithia are lower. Citric and tartaric acids and cream of tartar are all firm. In heavy chemicals the prospects are more healthy, both as regards the home and export branches.

Arrivals.

The following drugs, chemicals, &c., have arrived at the principal ports of the United Kingdom from December 18 to 20, inclusive:—Acetone, 10; annatto (@ Bordeaux), 17; bleaching-powder (@ Tréport), 70; bromine (@ Hamburg), 167; canary-seed (@ Constantinople), 300; caraway-seed, 20; citric acid (@ Bordeaux), 8; cream of tartar (@ Rotterdam) 8, (@ Marseilles) 26; drugs (@ Cartagena), 4; essential oils (@ Ostend), 3; gum arabic (@ Aden), 8 cs.; gum, unenumerated (@ Aden), 65 bgs.; juniper-berries (@ Trieste), 167; manna, 7; opium (@ Constantinople), 39; oxalic acid (@ Rotterdam), 6; petrolatum (@ New York), 40 bbls.; pimento (@ Jamaica), 242; potassium cyanide, 150; saffron (@ Valencia), 1; shellac (@ Calcutta) 594, button lac 161; soy (@ Hong-Kong), 100; tartaric acid (@ Bordeaux), 20; wax, bees' (@ Calcutta) 13, (@ Hamburg) 31 cs. 189 bgs.; wine-lees (@ Palermo), 779.

The following drugs, chemicals, &c., have arrived between December 22 and 30, inclusive:—Acetone (@ Fiume), 76; aloes (@ Bombay), 6 cs.; argol (@ Messina), 339 bgs.; barium chloride, 10; bleaching-powder (@ Tréport) 30, (@ Hamburg) 393; borax (@ W. C. S. Amer.), 169 bgs.; boric acid (@ Leghorn), 20; buchu (@ Cape Town), 16; calcium carbide (@ Gothenburg), 148 drms.; camphor (@ Hamburg), 6; cardamoms, 11; caraway-seed (@ Amsterdam), 592; castor oil (@ Antwerp), 193 bbls.; ciuchoua (@ Havre) 60, (@ Bombay) 16, (@ Amsterdam) 418; cod-liver oil (@ Christiaia), 31; coriander-seed (@ Hamburg), 77; cream of tartar (@ Rotterdam) 20, (@ Bordeaux) 67, (@ Marseilles) 93; drugs (@ Dieppe) 14, (@ Rotterdam) 12 bbls.; essential oils (@ Messina) 102, (@ New York) 20; eucalyptus oil (@ Melbourne), 114 cs.; formaldehyde (@ Amsterdam), 142 bbls.; ginger (@ New York), 268; glycerin (@ Amsterdam) 35 cs., (@ Marseilles) 100 cks., (@ Rotterdam) 69 drms.; gum arabic (@ Bombay) 200 bgs., (@ Suez) 64, (@ Aden) 38; gum olibanum (@ Bombay), 58 cs.; gum sandarac (@ Morocco), 122; henbane-leaves, 17 bbls.; iodine (@ Valparaiso), 25; juniper-berries (@ Leghorn), 328; liquorice (@ Messina), 44 cs.; liquorice-juice (@ Catania) 34 cs.; liquorice-root (@ Marseilles), 15; olive oil (@ Malaga), 1,200 bbls.; oxalic acid (@ Hamburg), 12; pot. caustic (@ Bremen), 17; pot. chlorate (@ Sweden), 163 pkgs.; pot. cyanide, 50; pot. pruss. (@ Hamburg) 59, (@ Paris) 10; quicksilver (@ Malaga), 15; rose oil (E.L.), 6 pots; saffron (@ Valencia), 1 cs.; sarsaparilla (*via* Hamburg), 55; senna (@ Bombay) 27, (@ Suez) 100; shellac 424, button lac 283; soda caustic (@ Antwerp), 17; soda chlorate (@ Gothenburg), 87; soda phosphate (@ Antwerp), 20; sugar of lead

(@ Hamburg) 10, (@ Tréport) 13; sulphur (@ Catania) 485 bgs. 7 bbls., (@ Girgenti) 750 tons; tartar (@ Naples), 23; tartaric acid (@ Rotterdam), 4; tragacanth (@ Bombay), 20; turmeric (@ Bombay), 383; wax, bees' (@ Australia) 3, (@ Bombay) 8, (@ Spain) 28, (@ Morocco) 257 pkgs.; wax, ceresin, 15; wine-lees (@ Naples) 449, (@ Messina) 383.

Cablegrams.

NEW YORK, December 24:—Cascara sagrada is higher at 6c. per lb. The market is very bare of Cape aloes, 14c. per lb. being wanted. Rio ipecacuanha is easy at \$1.60 per lb. Cod-liver oil is firmly held at \$52 per barrel, and the tendency is upward. Menthol is also firm at \$6.50 per lb. Damiana-leaves are easy at 9c. per lb., and golden-seal (hydrastis) is firmer at 53c. per lb.

NEW YORK, December 31:—Quiet conditions prevail here. Cascara sagrada has been advanced to 7c. per lb. Senega is becoming scarcer, and 75c. per lb. is now asked. Another advance has been made in menthol, \$6.75 per lb. being now asked. Balsam of Peru is dearer at \$1.10 per lb. Myrrh is very scarce, and 20c. per lb. is wanted for sorts. Japanese wax has advanced to 10½c., and grindelia robusta has risen to 6c. per lb.

Liverpool Drug-market.

Liverpool, December 31.

CASTOR OIL.—Business passing is very limited in proportions, and 2½d. lb. is being paid for good seconds Calcutta, and the same price for first-pressure French. Second-pressure French is obtainable at 2½d. per lb.

CANARY-SEED.—The market has experienced a very sharp rise during the past few days, and 75s. per quarter is now lowest for Barbary or Turkish seed, with predictions on the part of sellers that the price will be 80s. per quarter before long.

QUILLARIA-BARK is firmly held at 20l. per ton, with the prospect of higher prices being asked.

ACACIA.—The holidays have somewhat restricted business in this article as well as others. The only sale to report is seven serons of hard amber Soudan sorts at 29s. 6d. per cwt.

TURPENTINE.—Very steadily held on the spot at 40s. 6d. per cwt.

SULPHATE OF COPPER.—Much firmer at 18l. per ton.

SCAMMONY-ROOT.—The sale of 24 bales good ordinary quality is reported at 27s. 6d. per cwt.

German Drug-market.

Hamburg, December 30.

Business is very quiet at present owing to the holiday season, and prices have varied little since last week.

AGAR-AGAR is quiet but firm; prime is quoted 315m., and current quality 300m. per 100 kilos.

ANTIMONY is cheap at 24m. per 100 kilos.

BALSAM PERU is firmer at 11m. per kilo.

CAMPOR.—Refined is strong at 425m. per 100 kilos.

CONDURANGO is unchanged at 105m. per 100 kilos.

ERGOT continues firm at 300m. per 100 kilos.

MYRRH is scarce at 160m. per 100 kilos.

IPECACUANHA.—Cartagena is quoted 14m. per kilo., and Rio 10m.

LYCOPodium is steady at 475m. per 100 kilos. for cases.

MENTHOL is scarce at 57½m. per kilo. A Japanese cable quotes 62½m. per kilo.

JAPANESE WAX is scarce; 118m. has been paid for spot delivery, and forward is offered at 110m. per 100 kilos.

SENEGA is very scarce, the Hamburg stock being small; present quotation is 725m. per 100 kilos.

SERMACEI is quiet at 230m. per 100 kilos.

OILS (FIXED).—Cod-liver is unchanged. Rape is quiet. Castor is very low in price; March to May delivery has been sold at 43m. per 100 kilos. for firsts. Linseed for spot delivery is firm.

OILS (ESSENTIAL).—Peppermint HGH is quoted 20m. per lb., and Japanese is scarce at 24m. per kilo.

American Drug-market.

New York, December 16.

Business generally remains good, but the market has a tame appearance and sales are only for immediate consumption.

BALSAM COPAIBA.—Supplies are fairly liberal and values a trifle easier. Prime Central American is offering at 37½c. to 39c. per lb.

CASCARA SAGRADA is in good demand, and for prime bark 5c. to 6c. is asked. Some old lots have sold at a higher figure.

COD-LIVER OIL is easier, and pure brands can now be obtained at \$50 per barrel.

GAMBAGE is firmer, and for prime pipe 70c. to 75c. is asked.

IPECACUANHA.—Rio is easier, and \$1.70 will now buy.

JALAP is firmly held at 12c. to 14c., with little obtainable at the inside figure.

MENTHOL has sold at \$6.25, but most dealers now ask \$6.50 per lb.

SARSAPARILLA.—Mexican is quiet and nominal, at 7c. to 7½c. per lb.

SENEGA has been in considerable demand for export, and holders have advanced quotations to 75c. per lb.

Japanese Drug and Chemical Markets.

Yokohama, November 27, 1902.

Our drug and chemical markets are very dull at present, the demand from the interior being slow, as is the rule at this time of the year.

In export-articles menthol is very high now; practically nothing can be obtained at any price, and the nominal quotation has touched the record-figure of 16 yen per catty, or double the price compared with the figure quoted a few months ago. Dealers sold heavily prior to the advance, at very low prices, and they are now trying hard to deliver their contracts. Peppermint oil is also very high, the nominal quotation being 6 yen per catty. We had never seen such famine-prices since the export-business in these two items commenced. Dry ginger is cleared off the market now, but the new crop is due to appear during December, and no forward business is being done, in anticipation of lower prices. The crop is said to be nearly double that of last season, or, say, 40,000 piculs to 45,000 piculs. New prices are expected to be about 11 yen per picul, and even at 10 yen per picul it is remunerative to cultivators. This year's crop of iodine is estimated at some 80,000 lbs. altogether, and price remains unchanged. Camphor is firm, in anticipation of the Monopoly Bill, with which Government intend to control the interior products, as they did with Formosa. The Bill will be laid before Diet in December. The refined (1-oz., ½-oz., ¼-oz.) tablets are quoted 90 yen to 93 yen per 100 lbs., according to quantity and holders.

In imports, business is at a stand-still, and there are no important changes to report. Carbolic-acid crystals (35°) are low, at 28 sen per lb., without demand; cocaine has advanced to 8.00 yen per oz.; Condurango-bark is firm, at 28 sen per lb., with a higher tendency; ergot is cheap, at 80 sen; glycerin is low, at 30 sen per lb. for P. J. II. quality, owing to free arrivals and a heavy stock. Rio ipecacuanha is low, at 5.25 yen per lb., with a still lower tendency. The demand for morphine from China has now stopped and the price is low, at 37 yen per lb. Quinine is lifeless, at 75 sen for muriate and 40 sen for sulphate, without demand, and market is very weak in face of heavy stock. Santonin is high, at 10.50 yen per lb.; sugar of milk is quoted 22 yen to 24 yen per cwt.; thymol is cheap, at 3.60 yen per lb.

ACID, OXALIC.—A Continental report states that practically no stocks are to be had from second-hands at below the convention quotation of 50m. per 100 kilos., and that probably still higher prices will prevail during 1903.

ANISEED.—Alicante is very dear, the equivalent of 55s. in London being quoted.

BALSAM PERU is obtainable at 5s. 3d. per lb., spot.

CAMPHOR.—Our Yokohama correspondent reports, under date of November 27, that the camphor-monopoly Bill, by which the Japanese Government seek to obtain control of the Japanese product, was to have been laid before the Diet in December. Since his writing, however, a political deadlock has ensued in Japan, the House of Representatives being dissolved by Imperial order, and the House of Peers prorogued. The elections take place in February. The monopoly have reduced their c.i.f. quotations for crude by 5s. per cwt.

The exports of camphor oil from Japan to various countries from 1899 to 1901 were as follows:—

	1901		1900		1899	
	Quantities	Value	Quantities	Value	Quantities	Value
China	Kin 1,522	Yen 366	Kin 356	Yen 62	Kin 136,315	Yen 13,575
France	25,800	3,650	—	—	10,140	912
Germany	6,494	785	83,910	17,593	297,100	36,378
Great Britain ..	17,384	2,334	44,412	8,853	68,429	5,482
Hong-Kong ..	849,663	134,400	104,990	17,012	241,581	25,556
U.S.A.	660,842	93,325	216,570	37,753	346,387	34,404
Other countries ..	262	71	705	147	274	45
Total	1,561,970	239,931	450,973	81,350	1,100,226	116,352

[Kin=13 lbs.; Yen=2s. 0½d.]

The exports of camphor from Japan to various countries from 1899 to 1901 were as follows:—

	1901		1900		1899	
	Quantities	Value	Quantities	Value	Quantities	Value
Australia	Kin 23,844	Yen 32,903	Kin 41,559	47,723	Kin 12,589	Yen 12,784
Belgium	—	—	8,990	8,027	116,100	71,230
British America ..	16,007	21,586	4,803	6,423	1,503	1,421
British India ..	512,762	552,393	187,670	202,290	126,720	96,582
China	82,592	64,349	16,374	13,895	18,217	9,863
France	211,612	183,722	33,008	29,510	271	257
Germany	627,310	532,770	87,760	64,117	287,624	192,634
Great Britain ..	899,067	949,722	358,021	429,412	47,514	29,489
Hong-Kong ..	891,565	750,603	1,141,516	1,017,807	1,497,114	93,219
Philippines ..	2,503	3,354	11,016	10,731	—	—
U.S.A.	896,278	810,420	1,388,706	1,238,971	648,538	399,276
Other countries ..	2,307	3,102	1,287	1,789	2,385	2,287
Total	1,165,757	3,904,969	3,280,715	3,070,695	2,758,625	1,754,492

[Kin=13 lb.; Yen=2s. 0½d.]

CANARY-SEED has advanced considerably this week. On Wednesday 71s. 6d. per quarter was paid for Turkish on the spot, and the tendency is still upwards, as the quotation for shipment from Turkey is given at 85s. per quarter, c.i.f. terms.

CANNABIS INDICA.—The market is now very bare of tops, a large export business (estimated at about 60 bales) having been put through for the United States at 2s. 9d. per lb., and 3s. is now the price, the lower figure having since been refused. Siftings are unobtainable, and there have been no arrivals of the drug for many months.

CASCARA SAGRADA is much dearer. Both previous to and since the holidays there has been a brisk demand, mostly for spot, at from 30s. to 32s. 6d. per cwt., net, and holders are quoting 35s. to-day. The spot market is now very bare, and there are few offers "to arrive," except at considerably higher prices.

CINCHONA.—The exports from Java during December amounted to 1,300,000 Amst. lbs., against 1,273,000 Amst. lbs. in 1901, and 1,091,000 Amst. lbs. in 1900. The total for the year is 13,143,000 Amst. lbs., against 12,606,000 and 10,741,000 Amst. lbs. in 1901 and 1900 respectively.

COCOA-BUTTER.—The auction to be held on January 6 will consist of 75 tons Van Houten's, 40 tons Bendsdorp, 16 tons De Jong, 8 tons Helm, 5 tons Mignon, 20 tons Suchard (in second-hands), and 2½ tons unmarked.

DANDELION.—Whole root is offered at 28s., and cut 31s. per cwt., c.i.f. terms.

GOLDEN SEAL is offered at 2s. 3d. per lb. net, spot.

INSECT-FLOWERS.—A Trieste report states that there has recently been a brisk demand, especially for small wild closed flowers. The following are the quotations: Open, 79s. to 80s.; half-closed, 100s.; wild closed, 115s.; small closed, 117s. to 121s.; and extra small wild closed, 128s. per cwt., c.i.f.

LITHIA CARBONATE.—A reduction of 1s. 4d. to 1s. 6d. per lb. is announced to-day, makers quoting small wholesale quantities of carbonate at 5s. 4d. per lb.; and 4s. 6d. for at least 2-cwt. lots.

LYCOPodium is obtainable at 2s. 6d. per lb., spot.

MORPHINE is firm at 4s. per oz. for hydrochloride powder.

OIL, CLOVE.—B.P. quality is firm at from 2s. 9d. to 2s. 10d. per lb., according to quantity.

OIL, COD-LIVER.—Writing on December 27, our Bergen correspondent reports a very dull market for non-congealing oil, which is quoted nominally at 170s. per barrel, f.o.b., Bergen. The exports from that port to date amount to 9,195 barrels, against 13,497 barrels at the corresponding period of last year.

OIL, CUBE.—English distilled has been advanced to 4s. 9d. per lb.

OIL, LAVENDER.—Mont Blanc is quoted 6s. 9d. to 7s. per lb., and pure *spike* 2s. 6d.

OIL, LEMON, is very firm at from 2s. 8d. to 3s. per lb., c.i.f., according to brand.

OIL, PEPPERMINT.—American HGH is firm but quiet at 21s., London terms; and Japanese dementholised at from 10s. 9d. to 11s., spot; but to arrive 13s. 3d., c.i.f., is now quoted.

OPIUM.—The London market is rather firmer in sympathy with Smyrna. Business has, however, naturally been quiet, with a few sales of Smyrna firsts at from 6s. 9d. to 7s. 3d. per lb.

SMYRNA, December 19.—The firmness of the market and the scarcity of sellers has led to a small business only this week, some 20 cases of Adette, Karahissar, Yerli, and Bogaditz t. q. changing hands on account of local speculators at from 7s. 4d. to 7s. 6d. per lb., c.i.f. Most holders have retired from the market, having received orders from the interior to do so on account of the hard frost. As already stated, the sowings have been late, and the plants are too small to be able to resist the severe cold weather which has set in. Prices are now not likely to decline, but rather advance should the frost continue and speculators enter the market. The arrivals in Smyrna amount to 4,770 cases, against 2,840 cases at the same time last year.

CONSTANTINOPLE, December 23.—The bad weather has again put a stop to all field work and imparted a firmer tone to the market all round. There are numerous buyers in Smyrna especially, but they have not as yet made up their minds to pay present prices. We fear they will have to pay further advance later on, as there are absolutely no signs of any giving way on the part of holders. The week's sales amount to 15 cases "drug-gists," 6s. 9d. to 6s. 11d.; and 9 cases "soft," at 8s. 4d. per lb., f.o.b. Market closes strong.

CONSTANTINOPLE, December 27.—The only sales to report are 5 cases "drug-gists," at 7s. During the past week heavy snow has fallen all over the country, and now severe cold has set in. As sowings are entirely out of the question for some time to come, the market has advanced 3d. to 4d. per lb., with no sellers.

The Smyrna correspondent of the *Levant Herald*, under date of December 15, reports that the agricultural prospects are everywhere satisfactory, and wherever the sowings could not be completed, owing to the unexpected advent of winter, field work is carried out in the intervals of fine weather. Business in opium, of which alone there is a large stock, was slack, as buyers consider present prices too high.

QUININE has been very quiet, but firm, the year closing with a small business in the usual brands of German sulphate at 11½d. to 11¾d. per oz., spot, and 1s. 0½d. for May delivery. To-day there are sellers at 11½d., spot, and buyers at 11¾d. to 11¾d. If the bark shipments from Java had been moderate, as was expected, there would probably have been a better tone.

The exports from Java during October amounted to 242 cases, 100 cases of which were shipped to the U.K., 133 to New York, 7 to Japan, and 2 cases to Singapore. From January 1 to October 31 the exports have been:—

Cases ...	1902	1901	1900	1899	1898
	1,363	1,692	1,701	1,467	957

A case usually contains 400 oz.

The result of the quinine tender held at Batavia on Wednesday, December 31, was as follows: Of 2,150 kilos. Ed. II. offered, 1,900 kilos. were sold at an average of 16½f. per kilo. (about equal to a unit of 6¼c. Amsterdam), against 16½f. per kilo. at the previous tender.

SAFFRON is steady at previous prices, and there is a fair business.

SCAMMONY-ROOT is firm at 27s. 6d. per cwt., with a fair inquiry.

SENEGA.—There is a little inquiry, holders being firm at 3s. 3d. per lb. net spot.

SERPENTARY is quoted 1s. 10d. per lb. net on the spot.

SHELLAC.—On Monday the market opened firmer in all positions, owing to the fact that a steamer from Calcutta to New York with 4,000 cases on board had been destroyed by fire and abandoned. On the spot fair sales of Second Orange have been made at 123s. to 124s. for matted to fair TN cash terms. Futures were also dearer, a "Call" being held on December 29, owing to the active market. Sales of TN for January delivery were made at 125s., February 126s., March 124s. to 125s., and May 125s. Prices of futures however fell away the next day, May delivery selling at 123s. 6d. to 124s., and again on Wednesday prices were easier, January selling at 124s., February 124s. to 123s. 6d., and sellers of May at 123s. per cwt.

SPICES have been very quiet this week, and there were no auctions on Wednesday. *Pepper* is firmer for Singapore black, with sellers at 6½d. per lb. on the spot, and at 6¾d. for shipment. *White* is unchanged, with little business doing. *Zanzibar Cloves* are easier on the spot at 4½d. per lb., but firmer for delivery at 4¾d., a few hundred bales having been sold thereat.

STAVESACRE-SEEDS are offered at 25s. 6d. per cwt., c.i.f.

WAX, BEES.—W.H.B. refined, 2-lb. blocks, in five-case lots, is quoted at 8d., net. W.H.B. white, five-case lots, 9d., net.

Commercial Notes.

A Large Order.

In connection with the electrification of the Mersey Tunnel Railway, Messrs. H. N. Morris & Co, manufacturing chemists, of West Gorton, despatched from Manchester last week what is believed to be a record consignment of sulphuric acid—thirty truck-loads. The supply is intended for the electrical storage at Birkenhead.

Java Government Cinchona-plantations.

A sum of 239,000 fl. has been allotted to the Java Government cinchona-plantations, in connection with the estimates for 1903. This sum is an increase of 189,000 fl. on the estimates for 1902. It is intended for the purchase of quinine, gathering, manufacturing, transport, and sale of cinchona, &c. In 1902 the production of Government bark was estimated at 1,000,000 Amsterdam lbs., but this year they hope to increase the output by 50 per cent.—i.e., 1,500,000 Amsterdam lbs. In view of this, and also because more money is required for laying out new nurseries, upkeep of nurseries, &c., expenses of the Government plantations are estimated at 5,000l. There is also an increase of 3,250l. in the estimates for the purpose of meeting the extra cost of manufacturing the quinine produced by the Bandung Quinine Works. The revenue for 1903 is expected to realise 399,000 fl., chiefly derived from the sale of Java quinine.

Japanese Agar-agar.

Last year 1,964,975 lbs. of agar-agar, valued at 116,260l., were shipped from Kobe and Osaka, against 1,784,542 lbs., valued at 91,763l., in 1900. The bulk of the export goes to Hong-Kong and China, but in 1900 over 57,000 lbs. were sent to the United Kingdom and over 73,000 lbs. to Germany. In Japan the article is known as "kanten" or "colle vegetable," and is the gelatine of an alga called "tengusa" (*Gelidium corneum*). It is found in considerable abundance along many parts of the coast of Japan. After being gathered it is bleached, dried, and packed in bundles at Nishi-no-miza, and other places in the vicinity of Osaka.

The following tables relate to the exports of agar-agar from Japan to various countries from 1899 to 1901:—

	1901		1900		1899	
	Quantities	Value	Quantities	Value	Quantities	Value
	Kin	Yen	Kin	Yen	Kin	Yen
Australia ..	2,746	2,706 00	3,417	2,809 30	152	80 20
Belgium ..	—	—	3,500	3,180 08	29,800	20,660 00
British India ..	49,436	35,127 19	33,810	22,280 37	35,131	20,575 33
China ..	823,242	672,013 40	579,683	395,243 75	531,739	228,896 33
Dutch India ..	3,700	2,850 00	5,519	4,780 00	—	—
France ..	1,965	1,830 00	3,628	3,115 23	7,500	4,835 00
Germany ..	50,274	40,172 50	55,038	43,047 62	20,850	14,581 40
Great Britain ..	17,402	17,404 30	43,099	33,132 00	6,825	4,905 00
Hong-Kong ..	613,102	418,923 98	700,004	433,827 04	553,875	316,848 54
Russian Asia ..	2,117	1,593 07	3,511	2,535 50	1,200	543 65
U.S.A. ..	14,132	13,849 66	10,350	7,696 60	1,941	1,294 54
Other countries	6,632	4,724 60	2,943	1,674 35	2,233	1,215 00
Total ..	1,584,748	1,217,194 70	1,444,499	964,321 76	1,207,276	674,434 96

[Kin=1½ lb. avoird. Yen=2s. 0½d.]

The *Osaka-Kobe Trade Review*, under date of November, 1902, states that desirable quality of Japanese isinglass is practically unobtainable, and business is impossible. On taking into consideration the quality of the weed which the manufacturers have bought up to the present, it is expected that the output will be about 25 per cent. to 30 per cent. less than that of last season.

CHEMICALS to the value of 1,096l. were imported into Spezia (Italy) during 1901, against 1,652l. in 1900.

West of Scotland Chemicals in 1902.

DURING 1902 trade in chemicals has been fairly good, but prices on the whole have been gradually dropping until, in many cases, rock-bottom has been reached, and now there seems to be a prospect of reaction. Continental competition is mainly the cause of the reduction, especially in heavier chemicals, such as caustic soda, bleaching-powder, borax, bichromates, &c., but none of these articles can go much lower without incurring loss to the manufacturer on both sides. For some years past there have been different combinations between home and foreign makers for the purpose of maintaining prices and allocating the quantities to be sold, and to what countries. At first these arrangements were found to work fairly well, but as Continental makers got stronger and extended, the trade of the home makers gradually diminished, and it might have been better had they faced the competition boldly at the start. It is possible that home makers somewhat tardily realise this, as there is now more disposition to stand on their own legs and face all competition. This is notably the case in regard to borax, bichromates, and bleaching-powder. A year ago the impression with regard to bichromates was that foreign competition would gradually force home makers to agree to a combination, but the position is quite the reverse at present. Home makers have simply sat tight, and kept prices at a minimum, and the result now is that a good many of the weaker Continental makers have closed this branch of their work. Orders are therefore coming more freely to this country, and makers are as fully booked ahead as they care for. Bleaching-powder, well maintained at 6*l.* to 6*l.* 10*s.* during the year, has been dropped to 4*l.* to 4*l.* 10*s.* for delivery over next year. Of course there cannot be much profit at that price, but it shows the home makers' determination to hold their position at home, and they can always live upon the accumulated fat of the difference between the two prices. Borax, on the other hand, seems to have been the worst, as recently prices have been slightly advanced. Makers are well sold for forward delivery, and the expectation is that there will be a further advance in price. Unfortunately, chlorate of potash and soda still show a downward tendency, as the French and Scandinavian makers, with the help of electricity generated from water-power, can produce these articles at a very low figure. Home makers, on the other hand, have to raise their electricity where used from steam-power, which places them at a disadvantage.

But while foreign competition has curtailed production, and also reduced prices on many articles, it has also its compensating aspect, as manufacturers have been forced to look about for and adopt improved methods for production. These improvements, coupled with the reduced price of fuel as compared with last year, have served to minimise the loss which might be inferred from the lower prices ruling, so that the financial result of the year's trading should be better than it appears on the surface. Sulphate of copper, cyanides, prussiates, &c., have all been quiet, with the natural result of reduced prices, until now there is very little margin left for the manufacturers. Unfortunately, the outlook ahead for these in the near future is not bright, as until the South African demand increases there will be little improvement. The chemical-manure trade has been steady, with comparatively little fluctuation in prices. Sulphate of ammonia, which is a speculative article, has not varied more than 1*l.* per ton over the year, but has all through remained at a fairly satisfactory figure for the producer, with stocks well cleared.

While in the heavier chemicals trade has been somewhat unsatisfactory, there are a large number of branches of the trade where the foreigner is weak, such as tar and wood products, sulphuric and other acids, ammonia, &c., all of which have been well employed at remunerative prices; in some instances there is a tendency toward extension of plant. These branches cater principally for the local trade, and the inference is that the consumers of the different articles have been well employed.

As a whole, the outlook for 1903 may be considered good; prices for most articles have already reached bottom;

while in many cases there are indications of a reaction and the prospect of a steady demand. The economics and improvements in plant forced upon manufacturers have placed them in a position to hold their own, and 1903 is likely to be a more remunerative year than 1902 has been.

Coming Events.

Secretaries should send us notices by Wednesday of each week

Monday, January 5.

Society of Chemical Industry (London Section), Burlington House, Piccadilly, W., at 8 P.M. Dr. J. T. Hewitt will read a note on "The Fluorescence of Naphthalic Anhydride," and Dr. J. Lewkowsch a paper on "The Saponification of Fats and Oils by means of Dilute Acids."

Wolverhampton Chemists' Association. Mr. Gibson will read some "Pharmacopœia and Dispensing Notes."

Tuesday, January 6.

Blackpool and Fylde Chemists' Association, Palatine Hotel Blackpool monthly meeting.

Huddersfield Chemists' Association, at 8.45 P.M. Discussion on patent medicines and patent medicine advertisements.

Wednesday, January 7.

Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, W.C., at 11 A.M. Council-meeting.

Pharmaceutical Society of Ireland, 67 Lower Mount Street, Dublin, at 3 P.M. Council-meeting.

Glasgow Chemists' and Druggists' Assistants' and Apprentices' Association, Shepherd's Hall, 25 Bath Street. Annual dance.

Thursday, January 8.

London Chemists' Association (North London Branch), at Idris's Factory, Pratt Street, Camlen Town, N.W., at 3.30 P.M. Mr. T. H. W. Idris, J.P., L.C.C., will give an address on the advantages of association. Messrs. Pentney and Pond will report on the P.A.T.A. Convention.

Friday, January 9.

Society of Chemical Industry, Manchester Section. School of Technology, at 7 P.M. Monthly meeting.

THE annual dinner of the Teesside Chemists' Association will be held at the Corporation Hotel, Middlesboro', on January 14, at 8.30 P.M. Colonel S. A. Sadler, M.P., will preside.

THE Manchester Pharmaceutical Association will hold a *conversazione* in the Medical School, Owens College, on January 28. Reception by the President, Mr. G. S. Woolley, from 7 to 7.30.

THE annual dinner of the Blackpool and Fylde Chemists' Association will be held on January 14 at the Palatine Hotel, Blackpool. Tickets (5*s.* each) can be had from Mr. J. Sankey, chemist, Blackpool.

THE social meeting of the Midland Pharmaceutical Association, Birmingham, which was fixed for January 8, is postponed till January 21. It will take the form of a *conversazione* and ball at the Edgbaston Vestry Hall. Tickets are obtainable from Mr. J. A. Radford, Union Street, Birmingham.

POISONING-CASE.—Daniel Hickey, Kilbrittan, co. Cork, drank some eye-lotion containing belladonna in mistake for rum on Christmas night. A verdict of accidental death was returned at the inquest on December 27.

GERMAN-ENGLISH.—The *Daily News* gives an example of that study of foreign languages which is asserted to be among the foundations of German commercial progress. It was received in reply to a question about the manufacture of surgical bandages addressed to a German firm:—

SIRS,—With attendet we regret us to informes jou, that we to build already twelves years a Bandage-Cutting and Rolling Machine as speciallydet. The greats preferreds to the same, quick and neat work, to have these machine maked worthfully for all Manufactories of Bandages, Hospitals and Sickness-houses thus that we till this day already over 500 pieces to sell can. It shall us to be agreeable, when too jou should have interest for this machine and we are fond willing to informed you further.

Jours faithfully, —.

The son of the Fatherland who translated this communication must have learned his English in Berlin. It would be interesting to see how London-made German compares with it.

The Products of the Bee.*

By S. T. FROST.

PROPOLIS is a substance employed by bees for stopping cracks and crevices in the hive, and generally as a cementing medium. It is of a very dark-green, almost black, colour, of a highly resinous and tenacious character, and is collected by the bees principally from the buds of plants and the horse-chestnut, and from the bark of certain other trees. "Propolis" was the name given to an old galenical preparation made from the leaf-buds of poplars, birches, and other trees. This preparation was found to be extremely useful in the diarrhoea of children, and it was also employed for the treatment of wounds, for anointing various eruptions of the skin, and in seborrhoea and other complaints; but propolis in its crude state, as a by-product of beekeeping, does not appear to have been adapted to modern therapeutical requirements. Recently, however, a preparation made from crude propolis had been introduced under the name "Propolisine." This new preparation is an oily liquid of characteristic and pleasant odour, which was reported to have gained considerable recognition in therapeutics as a disinfectant and antiseptic.

The production and composition of

HONEY

was next dealt with. In the first instance, continued Mr. Frost, a sweet liquid—nectar—secreted by flowers, is extracted from the nectary of flowers by the bee and is passed from its mouth to the honey-sac, and in passing receives the secretions of a system of glands at the root of the tongue, which convert the cane-sugar of nectar into the grape-sugar of honey. On returning to the hive the bee disgorges the honey and stores it in the cells of the honeycomb. The heat of the hive causes a certain amount of water to evaporate, and the ripe honey contained in the cell is then sealed over with a thin cap of wax. The author having referred to the composition of honey and the characteristics of the pure and sophisticated articles, also to its properties as a food and a medicine, quoted the following formula for making *mead*, recommended by the Rev. Gerard W. Bancks, M.A., of Hartley Rectory, Kent, who has made a special study of honey and its uses:—

To every gallon of water put 2 lbs., 3 lbs., or 4 lbs. of honey (according to quality of mead desired), with the peel of two lemons. Boil for half an hour, and then pour into a cask. When lukewarm add a little yeast, and to a 9-gal. cask 2 oz. each of ammonium phosphate and cream of tartar. Tack cream-cloth or muslin over bung-hole. When it has ceased working bung up tightly, and let it remain in the cask six months; bottle and cork at once.

With regard to the ferment, Mr. Bancks states that it is important that a suitable one be introduced immediately the temperature of the liquid reaches about 90° F., and that it should develop as quickly as possible, so as to prevent the possibility of undesirable ferments making any progress. "Honey-vinegar," which is more wholesome and of far superior flavour to ordinary vinegar, was also described. Dealing with the commercial side of the subject, Mr. Frost pointed out that the honey and wax market of the United Kingdom is largely dependent upon foreign countries for an adequate supply. The amount of honey imported during the past five years had been roughly estimated at about 2,250,000 cwt., value about 31,000£., or about 3½d. per lb. Among the principal countries supplying the British markets are the United States of America (chiefly California), Chili and Peru, British West Indies, France, Italy, Australia, and Germany. Occasionally honey is also imported from New Zealand.

California comes easily first as a honey-producing country, the crop in 1886 (the last date quoted) being 4,500,000 lbs. With its opulence of bloom, practically all the year round, California is an ideal home for apiculture, as many as three crops of honey being available. Beekeeping is carried on most extensively along the southern coast, where the sage-brush hills furnish the whitest, most delicate honey in the

market. By moving the bee-colonies about three crops of honey are secured, the bees being kept active during nine months of the year. Notwithstanding the large yields of honey that are obtained in California, adulteration is sometimes practised, and Californian, as well as honey from other countries, is often mixed with glucose. One method, said to be adopted in California, is to fill the 4-gal. can in which honey is shipped about one-quarter full with glucose of a fairly thick consistency, and the honey is then poured on the top of the glucose.

Chili probably ranks next to California as a honey-producer, although the industry there is only about twenty-five years old. Good thick white Chilian honey is especially esteemed for medicinal purposes. Chilian and Peruvian honey and wax are much of the same class. The principal markets in Europe for Chilian honey are Hamburg and Liverpool, it being very rarely offered in London. Hamburg has of late years considerably developed as a port for Chilian and Peruvian wax and honey. For instance, of 2,178,000 kilos. (1,000 kilos. = 1 ton) of honey imported into Hamburg, more than half was shipped from Chili and Peru, while of beeswax 1,376,000 kilos. was imported in 1899, against 1,262,300 kilos. in 1898. The imports of Chilian honey and wax into Liverpool during the past few years are shown in the following table of figures, supplied by Mr. T. H. Wardleworth, of Liverpool:—

	1897	1898	1899	1900	1901
Chilian Honey:—	Brls.	Brls.	Brls.	Brls.	Brls.
Stock, December 31	910	1,545	790	600	5,750
Imports	3,163	5,995	4,422	5,257	11,515
Chilian beeswax:—	Pkgs.	Pkgs.	Pkgs.	Pkgs.	Pkgs.
Stock, December 31	170	60	80	190	117
Imports	723	755	914	734	995

French honey is mostly shipped to London from Dieppe, and the new crop generally comes in about August and September. About 6,000,000 kilos. is an average crop, the bulk of it being consumed in France. It is seldom offered for sale in Mincing Lane, as the imports usually go into the hands of wholesale druggists direct.

Dealing with Jamaica honey, Mr. Frost said it had been much in evidence in the London market of late years, where it has become one of the cheapest varieties of honey sold. In Cuba it is said to be produced at a cost of 2c. per lb. Mr. A. J. Root (an American), one of the greatest authorities on the subject, had expressed the opinion that Jamaican "logwood" honey compares favourably with anything that can be produced in America. The author also referred to Mr. W. K. Morrison's pamphlet, recently discussed in the *C. & D.* (April 5, 1902, page 532).

Australian honey is frequently offered in Mincing Lane, but its flavour is not greatly appreciated, probably owing to the bees having gathered nectar from eucalyptus-flowers; it is also flavoured, sometimes said to be perfumed. In South Australia beekeeping and honey-production are rapidly growing. The amount of honey produced in 1899–1900 was estimated at 523,000 lbs., while in 1900–1 that amount was more than trebled, the total output being 1,700,000 lbs. Most of this honey is consumed locally, very little finding its way to Mincing Lane. If the colour and flavour of South Australian honey can be got to suit the requirements of buyers in the European markets, it ought to be possible to work up a large trade, as sufficient could be obtained to supply all the honey-importing countries.

New South Wales is also a large producer of honey, but very little comes to London.

Russian honey is never seen in the London market, although there is an estimated production of about 320,000 cwt. annually. That amount, however, is evidently not sufficient for home consumption, as both wax and honey are imported into Russia.

The Emperor Menelik, it is said, has a garden planted with kousso-plants, and stocked with beehives. After the flowering season, some of the honey is taken from the hives. A teaspoonful of this honey dissolved in water is said to be a very effective remedy for tapeworm, and free from any objectionable effects.

The price of honey depends upon flavour and colour. If

* Abstract of a paper read to the Chemists' Assistants' Association.

the honey is light in colour, the chances are—speaking particularly of Californian and Jamaican honey—that it has been gathered from the right class of flowers. The amount of honey used in pharmacy is insignificant in comparison to the total consumption.

The author, having dealt with poisonous honey, proceeded to speak about

BEESWAX,

which is formed in the body of the working bee of fluid honey and pollen—not involuntarily, as well-nourished animals form fat, but whenever the bees wish to form it. When they take fluid honey and pollen, in a larger quantity than they need for their own nourishment, the surplus is retained, further digested, and allowed to pass into the blood-vessels, in order to be chemically distilled there, and to exude upon what are termed the ventral plates, on the under part of the abdomen. The wax leaves the secreting glands in a fluid state, and solidifies in the form of small transparent white scales, five-cornered, resembling mica, and shining like mother-of-pearl. The variation in the colour of the comb has been found to be due to the pollen used by the bees. The pollen from different flowers gives the wax its distinctive colour.

It is generally considered that in order to produce 1 lb. of comb from 10 to 20 lbs. of honey is consumed. This is the reason why the modern beekeeper endeavours to keep his combs in good condition from year to year in order that the bees may commence to store honey as soon as the season begins.

Mr. Frost next dealt with the various ways of melting down the comb and clarifying the wax. Coming to adulterants, he stated these to be chiefly resin, tallow, stearin, goats' fat, paraffin, and vegetable and other inferior waxes. The only satisfactory test for beeswax is to determine the amount of cerotic acid and the non-volatile fatty acids present, but the following simple tests suggested by Mr. J. Dennler, are useful:—

1. When wax is chewed there should be no unpleasant taste and it should not stick to the teeth. If wax is adulterated with other ingredients the taste alone will detect them. If it sticks to the teeth the admixture of resin can be assumed.

2. Pure beeswax may be distinguished from adulterated by dropping a small piece of beeswax, of known purity, on a hot iron plate. The odour given off is noticed. Then a piece of the suspected wax is burnt in the same way. If it contains ceresine a disagreeable fatty white smoke is given off, which differs the more from the smell of wax the more ceresine there is mixed with it.

Having described the uses of wax in pharmacy its commercial sources were mentioned.

Imported wax varies greatly in colour and quality, ranging from white, through all the shades of yellow and brown, to black. Perhaps the article for which there is the greatest demand in the open market is Jamaican wax, which is shipped in barrels, casks, and cases weighing from 2 to 4 cwt., and always finds an unlimited sale in London on account of its undoubted purity. The prices range from 7*l.* 10*s.* to 8*l.* 15*s.* per cwt., and occasionally there is very active competition for it. The total exports from Jamaica in 1898 were valued at 10,294*l.*, against 4,823*l.* in 1888, while the value of the honey exported from Jamaica during the same years was 2,103*l.*, against 1,341*l.* The United States has increased her imports of wax from Jamaica, while the amount coming to the United Kingdom has decreased.

The Cincho-codine Pill.

Augustus Watts, Ph.D., M.D., was feeling sore dismayed; For there was "nothing doing," and bills that must be paid. Augustus was an able man, quite competent to rise, But patients failed to come his way, he dared not advertise; For "ethics" ruled the doctors' trade, with influence malign, And advertising was "taboo," save for a neat brass sign. A desperate resolve he took, for starving made him ill; He bade good-bye to "ethics," and invented a new pill. By printers' ink its fame was spread, and thousands day by day Were glad to pay their cash and take a box of pills away. The "Cincho-codine Compound Pill, Augustus Watts, M.D.," Was guaranteed to cure the "blues," and cure them rapidly. His fellow doctors were dismayed, with bitterness disguised, Called him a "quack," a "poisoner"—he smiled yet advertised. Augustus Watts, Ph.D., M.D., is advertising still; And thousands bless the man who makes the "Cincho-codine pill."

East African Kino.

KINO bids fair to become a considerable source of worry to those interested in the exploration of forest areas in tropical countries. The Indian Forest Department have for some years vainly endeavoured to find an outlet for the continually increasing amounts produced under their auspices, and, on the other hand, new sources of kino are now, and then discovered. The demand for it in the wine-trade and in medicine is small, whilst no process has yet been devised which will make it acceptable to the tanner or dyer to whom its high content of tannin and dye ought apparently to recommend it. It appears that German East Africa may in the near future compete for a share of the kino-trade, since Dr. Busse, who botanically explored the country on behalf of the German Government in 1900-1901, has brought home samples of kino, one of which appears to be a fairly good substitute for the Indian article. African kino is, of course, the form in which this drug first appeared in Europe about the middle of the last century, the name, in fact, being a corruption of the Mandingo name, "Kano." The African kino of those days, which came from the west coast, was, however, soon entirely replaced by the Malabar drug, and since that time only occasional samples from West Africa and Rhodesia have appeared on the market. The German samples of East African kino have been examined by Professor Schaer, of Strassburg, who gives the following descriptions of their appearance and reactions. These kinos, it should be observed, are collected in "tears" from the trees, and are not artificially evaporated juices as in India.

1. Derived from *Pterocarpus Bussei*. This tree was at first supposed to be identical with the *Pterocarpus ernaceus* which furnished West African kino, but was found by Dr. Harms to be a new species, which he has named as above. The kino occurs in small rounded or angular pieces of irregular size, transparent, and garnet-red in colour. It is slowly but completely soluble in cold water, but dissolves at once on warming. In 97-per-cent. alcohol the drug dissolves slowly in the cold but readily when warmed, and does not separate on cooling. Concentrated chloralhydrate solution dissolves it, and the mixture gelatinises only on long standing. Aqueous solutions give, with carefully neutralised ferrous sulphate, a violet coloration, and with ferric salts a green tint. When boiled with dilute mineral acids kino-red is produced, but no kinoin or pyrocatechin could be extracted from the sample by Flückiger's or Etti's methods.

2. Derived from *Derris Stuhlmannii* (Harms). Occurs in angular, cracked, garnet-coloured pieces, from 1 to 5 mm. in thickness, mixed with bark. This variety dissolves in warm water, and is only partially soluble in 97-per-cent. alcohol. It dissolves in chloralhydrate solution, and the mixture gelatinises in eight days. The reactions are practically identical with those of the foregoing sample, except that this variety contains pyrocatechin.

3. Derived from *Berlinia Emini* Taub. This sample was mixed with the gum from the same tree. After separation of the admixture the kino consisted of angular, brownish-coloured, dull-looking pieces, a few mm. in thickness. It was miscible with water, slowly and partially soluble in alcohol, and chloralhydrate solution gelatinised it at once. The colour-reactions were the same as in the foregoing cases, and the sample contained neither pyrocatechin nor kinoin.

It will be seen that only one of these new kinos is of a character likely to commend itself to pharmacists—viz., that derived from *Pterocarpus Bussei*. Professor Schaer is of opinion that this differs from Malabar kino in containing no kinoin; but although Etti has recorded the occurrence of this substance in Malabar kino, several observers, including Flückiger and Hanbury, have been unable to confirm this observation, although quite recently A. G. Perkin (*Journ. Chem. Soc.*, August, 1902, page 1173) stated that he has prepared it from this source by Etti's method. Kinoin may not, therefore, be a constant constituent of the Malabar drug, and, if so, the apparent slight difference disappears.

The constituents of kino are, however, a subject about which practically nothing is known, as indeed is also the case with tannins generally, and very little progress will be made in this direction until research of a higher order than the observation of their colour-reactions in an impure state is undertaken.

THE exports of star-aniseed from Wuchow during 1901 amounted to 1,461,733 lbs. (34,056*l.*), against 1,143,733 lbs. (31,952*l.*) in 1900.

Advertising's Artful Aid.

By ADEPS ADEPTIS.

IN an article printed in the Summer Issue of THE CHEMIST AND DRUGGIST an attempt was made to suggest the most profitable advertising methods available for the use of a chemist in a small country town or village—a place only large enough to support one pharmacy, and only this, in all probability, by the aid of some extraneous departments. Where we have to make an attempt on the advertising question in a larger town the problem is complicated by several new elements, one of which is the competition not only of the other members of our own fraternity, but also, in all probability, that of the grocer and the cutting company druggist. This confronts us with a number of difficulties and some perils, in regard to which the experiences of an old advertiser in several lines of business may furnish some hints and warnings not without value.

In the first place, it is very desirable, both from the advertising point of view and from personal considerations, to remember that we shall have to live with our competitors, most likely, all our lives. It ought not to be, and is not, difficult to make a strenuous effort for increased business, and even for business that will come, some of it, out of the trade of our brother pharmacist in the next street, without forfeiting his fraternal respect and esteem; and advertising which is prepared with this consideration in mind will be not less effective but more effective, if rightly done, in consequence. For it may be taken as an axiom to which experienced advertisers will subscribe in proportion to their experience, that there is never anything gained by throat-cutting or mud-slinging in one's publicity. All the most astute advertisers and writers on advertising are agreed that no good has ever been done by referring to competitors, their goods, or their advertising in one's own announcements. The proper use of advertising is to sell goods and to attract attention to one's own establishment. It is an entirely erroneous and futile thing to attempt to use advertising to injure the sales or reputation of a rival. To say this is not to pretend that advertising cannot be judiciously employed to get trade for oneself away from competitors; nor do I think that, in this country at all events, where men of business are a manly and fair-minded community, fair competition is generally productive of personal resentment or enmity. The case of an advertiser who foolishly and shortsightedly tries to advantage himself by belittling or decrying his neighbours is quite different. Such advertising only recoils on the head of the man who employs it. It exalts and calls attention not to him, but rather to the individual attacked. It convinces the reader that the latter must be a formidable person to need thus signalling.

Advertising, whether in newspapers or otherwise, can be used in two ways. It can be used to impress the character and personality of the advertiser upon the public mind—so that when a man thinks of going to the chemist's for something, he instinctively remembers one particular chemist and goes to his establishment—or it may be designed to stimulate trade in some particular line, or in some single speciality. So long as we only contemplate pushing the sale of such a speciality by retail, in our own shop, this last is a fairly simple matter. If, however, we expect to sell it to the trade for general consumption, it is a matter of so special and technical a nature that no attempt will be made upon it in the present article. We should be at once confronted with the problem of commencing a line of advertising which might lead almost anywhere, and which would mean nothing less than an attempt to conquer a place in the ranks of the big general advertisers.

Among the methods of advertising suited to the object first named—that is, to impressing one's name on the general memory of the townsfolk—may be mentioned newspaper-announcements of a general sort, almanacs, price lists, little picture-cards, and the distribution of any of the small advertising articles from time to time brought out under the rough designation of "novelties."

The advertisements generally inserted by chemists in local newspapers suffer greatly from sameness and deficient

variety. If it is worth while to advertise in the local paper at all, it is worth while to prepare an advertisement which is not exactly or nearly the same as that of every other advertising chemist; and it is also worth while to take the trouble of writing new copy as often as anything new can be thought of to say, thus securing variety. Some suggestions on this point were included in earlier articles of this series, published in THE CHEMIST AND DRUGGIST some time ago, and they need not be repeated. Neither is it necessary to say much on the trite question of almanacs and price-lists, the preparation of which seems to be well understood by most chemists, to judge by the excellent work got out by most of those who do anything of the kind. There is always available, of course, the expert assistance of the several firms of printers who make more or less of a speciality of this work, and who doubtless advertise their facilities in THE CHEMIST AND DRUGGIST. But something may conveniently be said on the employment of

ADVERTISING-PAMPHLETS AND THEIR DISTRIBUTION.

There is no reason why any chemist in a town of a fair size, if he wishes to increase his general business and has a good stock of sundries and accessories to offer (with or without a speciality or two), should not get up a sixteen-page booklet and distribute it. I do not call keeping a pile of little books on the counter for customers to take from, or wrapping up a pamphlet with goods sold, distribution. To do this is only to reach customers already made. If we are going to reach out for trade and try to get new business we must tell our tale in the ears of the people who are strangers to our counter, and try to bring them there. We must print enough books to allow of one being placed in every house with trade worth having, and must see to it that a book reaches every such house. If the book is properly got up there is no risk in this enterprise.

The style and printing of the book must necessarily depend, however, upon the amount of money available for it. A few judiciously selected pictures (purchased ready-made from some of the London electrotype agencies) will be a help. Whether to confine the contents to advertising, or to print some extraneous matter of local or topical interest (in any event, of course, avoiding all controversial matter), is a question to be decided according to circumstances and according to the literary talent of the advertiser. There is no doubt that a book is more likely to be kept if it have some such bait to attract the interest of readers.

We are here more concerned with the advertising-matter proper. In writing this bear in mind the *dictum* of one of the most experienced advertisers in England, who said that if he and his like only advertised what people wanted they would mostly be bankrupt. Advertising must not only teach people where to get what they want, but it must also teach them to want it, if they do not know enough to want it of themselves.

A skilful writer (and if the advertiser has not the literary knack he will do well to employ someone to help him who has) will manage to make even his advertising interesting. Neither I nor anyone else can enable the reader to possess this skill. All that can be done is to indicate broadly the way in which it is done.

There is no chemist who does not know a great many more interesting things about the goods he sells than his customers and prospective customers can possibly know. One way to make a booklet interesting is to write out some of these things. There is no occasion to treat them as common-places. Write of them, not as concerning *all* goods of the particular kind you are describing, but as they affect the goods *you* have to offer. I was once employed to write a series of newspaper advertisements for a manufacturer of cheap watches. I never saw him, nor had I any special information to guide me: his watches were much like any other watches, though *he* thought (and it is quite right that he should think so) that they were much better than most. Well, I read all I could find in the "Encyclopædia Britannica" about watches, and I "pumped" my own watchmaker a little for information. Then I took the little bits of watchlore thus gathered and out of each little bit I made as interesting a paragraph as I could. The manufacturer was delighted with the result, and I have reason to believe that it paid him hugely.

Now, this man had forgotten more about watches than I

shall ever know. All he lacked was ability to make use of his knowledge. Every chemist knows more about sponges, toilet-powders, tooth-powders, soaps, glycerin, hair-washes, and, in fact, sundries generally, than anyone who is not in the trade (or trades) involved in the manufacture of these articles. It ought to be a very easy matter to incorporate this knowledge in an interesting advertising-article. By way of showing what I mean, let me offer a simple and brief example. Let us suppose we are devoting a page to tooth-powder. Here is a suggestion:—

Every tooth consists, roughly speaking, of three parts. Outside is the enamel, extending to the line of the gums. It is extremely hard—nearly as hard as glass, and even more brittle. It is devoid of sensation. The next part is the dentine. It is softer than the enamel—a little softer, in fact, than ordinary bone—and it is full of microscopic passages communicating with the third part of the tooth—the nerve-pulp. Consequently this dentine is exquisitely sensitive. The little sensitive passages are what make it liable to decay.

Do you know how and why a tooth decays? It cannot do so until the dentine is exposed; but if it be exposed ever so slightly, either through a fissure or crack in the enamel, or by the shrinking of the gums, at once the dentine is attacked and decay commences.

The enamel is more often attacked through want of care in brushing than in any other way. If you go to bed at night without using a suitable tooth-powder, little pieces of food (especially sweet food), clinging to the teeth, ferment during the night and generate an acid which attacks the enamel. You may do this once, or a thousand times, without ever knowing it or experiencing any evil; but sooner or later the repeated attacks of this acid on the enamel will make a way through to the dentine. Once the dentine is attacked, in however small a spot, decay goes on under the enamel, until the larger nerve-channels are attacked, and then toothache begins, and a painful interview with the dentist is the only remedy. No one who values his teeth should ever go to bed, however tired he may be, without using a suitable tooth-powder. But this is just where danger comes in.

Teeth are often injured by the mistaken care of the possessors, who brush them with rough, gritty powders or dentifrices containing injurious chemicals and bleaches. To know if a tooth-powder is safe, the best plan is to put a little of it in the palm of one hand and rub it carefully into the skin, until it is all gone, with the forefinger of the other hand. If there is the smallest particle of grit thus disclosed, shun that powder as you would shun a pestilence.

The powder known to inhabitants of Asterisktown as "Brown's Evening Dentifrice" is prepared from a recipe of one of the best English dentists, and on the principles above indicated. It has just sufficient rubbing quality to ensure the removal from the teeth of any adherent matter; its ingredients are examined microscopically to ensure absence of anything which could scratch the enamel. The ingredient of it which gives it its detergent quality is ground *under water* to ensure absolute purity and fineness.

Brown's Evening Dentifrice, 1s. a box.

The foregoing is not cited as a perfect example. It is offered as a general illustration of the idea suggested. Most readers ought to be able to write much better matter than this about each of several lines. Such advertising is read, and advertising that is read never fails to create business. A pamphlet in which several lines are similarly treated would not only be sure of stimulating business to a profitable extent in the goods specially discussed, but it would also have another beneficial effect. It would enhance the local reputation of the establishment from which it emanated as an up-to-date and go-ahead pharmacy, and would stimulate general trade.

PRIZES OFFERED.

We shall give 5s. for drafts of advertisements similar to that in the foregoing on the following topics: Coughs, cod-liver-oil emulsion, toothache, chilblains, chest-protectors, winter embrocation, headache, and any other subject pertaining to counter-specialties. We shall award 5s. for each draft printed, and the shorter the drafts are the better, as something to fill a 3-inch or 6-inch column advertisement by a retailer is what we have in view. Any reader of THE CHEMIST AND DRUGGIST may try for the crowns.

PHYSICIAN (at hospital): "I thought you merely had the measles?" Patient: "Well, isn't that enough?" Physician: "Yes; but you are covered with bruises from head to foot. How do you account for that?" Patient: "Oh, they brought me here in an ambulance."—From the *Chicago News*, which explains the joke.

Practical Notes and Formulæ.

GOLDEN TOOTH-WASH.

Liquid extract of hydrastis can. ...	3j.
Menthol	gr. xv.
Thymol	gr. xv.
Benzoic acid	gr. xv.
Eucalyptol	℥xv.
Sodium borate	gr. xxx.
Saccharin	gr. iij.
Extract of rose	3j.
Powdered Castile soap	3vi.
Alcohol	3vj.
Water to make	3xviij.

—*Pharm. Era.*

FENNELETT.

(A laxative carminative for infants and children.)

Oil of aniseed... ..	℥xv.
Oil of fennel	℥xv.
Liquid extract of cascara	3j.
Liquid extract of senna	5ij.
Sodium bicarbonate	3ss.
Syrup	3vj.
Alcohol	3iij.
Water to make	3xviij.

—*Pharm. Era.*

BRONCHITIS-INHALATION.

Tr. benzoni comp.	3ij.
Tr. toluene	3ij.
Spt. chloroformi	℥x.
Spt. ætheris	℥x.
Spt. ammon. arom.	3i.
Alcoholis	5v.

M.

Sig.: Use in the inhaler three or four times daily.

—*Medical Times.*

ODOURLESS DISINFECTANT.

Alum	10 parts
Sodium carbonate	10 parts
Ammonium chloride... ..	2 parts
Sodium chloride	2 parts
Zinc chloride	1 part
Hydrochloric acid	sufficient
Water	100 parts

Dissolve the alum in about 50 parts of boiling water, and add the sodium carbonate. Dissolve the resulting precipitate of aluminium hydrate with the aid of just sufficient hydrochloric acid, and add the other ingredients previously dissolved in the remainder of the water.

—*Merck's Report.*

OIL OF COLOGNE.

Oil of bergamot	3v.
Oil of orange	3iiss.
Oil of petit grain	5iv.
Oil of rosemary	3j.
Oil of lavender	3j.
Oil of geranium	3ss.
Oil of jasmin	3ij.
Tincture of benzoin	3ss.
Tincture of tonka	3j.
Otto of rose	3j.
Oil of santal	3ij.
Essence of musk	3iij.
Alcohol ad	3xviij.

To make eau de Cologne mix 4 oz. of the oil of Cologne with 1 gal. of rectified spirit.

DISPENSING ESERINE SULPHATE.

THE deliquescent properties of eserine sulphate render it a troublesome salt for ordinary dispensing-purposes. Dr. G. V. Dillenback, in a recent issue of *Merck's Report*, suggests mixing the contents of a 5-gr. tube of eserine with 45 gr. of powdered boric acid in a mortar and transferring to a tightly corked bottle. Each grain thus represents $\frac{1}{9}$ gr. of eserine sulphate, and the powder will keep without change indefinitely if hidden from the light. The presence of boric acid in the finished eye-drops is not likely to be objected to physiologically: it is of considerable value in the preservation of the solution, and any not dissolving readily in cold water may be easily filtered out.